

AMERICAN EDUCATION

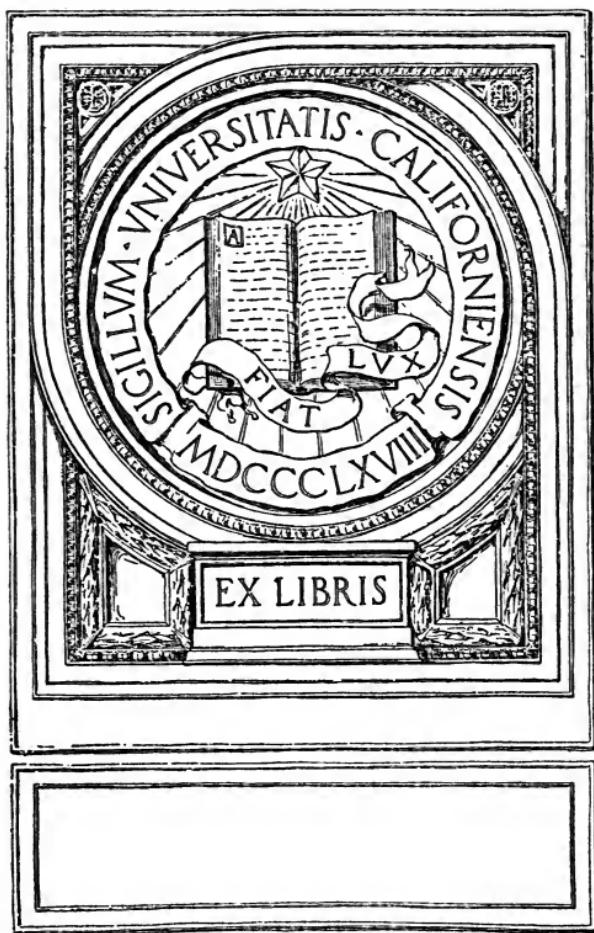
SYDNEY G. FISHER

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AMERICAN EDUCATION

BY

SYDNEY G. FISHER



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PREFACE

THE object of this book is to give the wayfaring man some idea of what seem to be the principles and methods of American education and the difficulties and controversies that have troubled it. I am not a professional educator. My only connection with education has been the attempts which were made to give me some of it in my youth and some twenty years' experience as a member of the board of trustees of a college. The latter position is not usually regarded as requiring technical knowledge, but has led me to study and inquire.

I felt the need of a general view or summary of the principles and problems; but there was none. I had to look up the facts and arguments from time to time in numerous reports, documents, pamphlets and books. Having collected so much material from these for my own enlightenment it has occurred to me to put it in a form accessible to others.

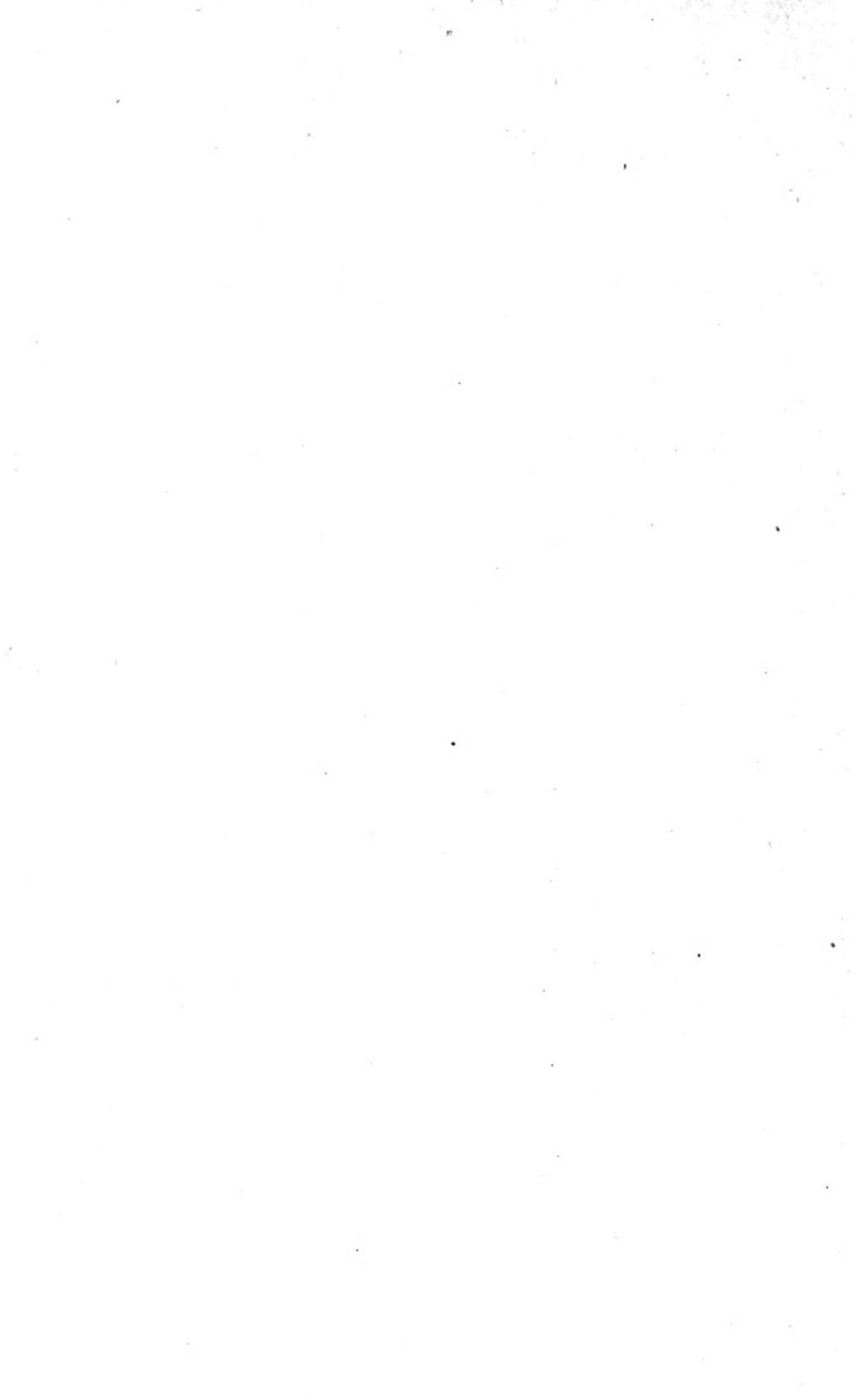
For the guidance of investigators I may say that there are several excellent bibliographies of material. One of these is at the end of a pamphlet, "Tests of College Efficiency," issued by the Faculty of Oberlin College. Another is at the end of Presi-

dent Foster's book "Administration of the College Curriculum." A third valuable one is at the end of U. S. Bureau of Education Bulletin, 1913, No. 38. To these should be added the annual reports of the U. S. Commissioner of Education and the publications of the U. S. Bureau of Education, of the Rockefeller General Education Board and of the Carnegie Foundation. Equally important are the severe criticisms on our system in the books of Mr. Flexner and Mr. Birdseye, in the essays of Mr. Charles Francis Adams and Dr. Pritchett, in the pamphlets of Mr. R. T. Crane, and in the report to the Carnegie Foundation by Mr. Morris L. Cook.

It has seemed to me that all this material of American experience, so varied, so full of visions and ideals, so untrammelled and irrepressible in experiments, affords a rare opportunity to study the real nature of education. It would be difficult to find another nation or another period in which such a mass of varied experimentation has occurred. If there is any new thing we have not tried, it is probably because no one has seriously suggested it. Our enthusiasm and our energetic struggles must have by this time very nearly outlined all the boundaries and possibilities.

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AMERICAN EDUCATION



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CHAPTER I

EUROPEAN EDUCATION TWO YEARS AHEAD OF OURS

OUR subject has a powerful basis of real and practical importance. We have a population of 100,000,000 people, with 19,000,000 enrolled school children and 25,000,000 of school age; and the control for educating them of over a billion dollars' worth of property. We must stand ready to educate that population when it doubles.

In spite of all shortcomings no one will, I think, deny that our public school system has accomplished wonderful results. Without it we should be buried in illiteracy. It has saved us from more anarchy and dangers to civil liberty and free government in the last fifty years than any other agency. It must be our mainstay for the future.

When we consider its extent through all our varied continent, from the Atlantic to the Pacific, and from the tropical Gulf to the Canada snows with its half million of teachers and turmoil of methods

and opinions, it seems like an appalling task to attempt to describe it. But things are often best understood through their contraries; and the briefest way to describe our system seems to be by the criticisms that have been made upon it. They show its outlines and limitations.

We led the way for the rest of the world early in the last century in free public schools and the education of the masses. European countries were inspired by the democracy of these ideals. They adopted them at first haltingly and with hesitation; but have now, as many think, surpassed us in them. At any rate in the great mass of evidence of our educational system, there is one conspicuous centralizing fact that will greatly help to lead us through the labyrinth, and that is that in scholastic, academic and professional education, young men in England, France and Germany are about two years ahead of ours.

Our school vacations are longer than those of Europe; our school hours shorter. Our school year and college year have been steadily shortened. Our boys enter college at the age of eighteen and a half or nineteen, and graduate at twenty-three. In England, France and Germany they attain a similar grade at seventeen, and graduate at twenty-one. If they go into the learned professions, they have two years the start of ours.

These facts have long been known to teachers and

professors; but are scarcely known at all by the general public, which remains happy in the belief that our education is of the same perfection as our form of government. That belief may possibly, as some have supposed, be entirely correct. The two years may be well lost. But before settling down in that conclusion, our people should know all the facts.

It is strange how little this point has been discussed. The report on it by the Baker Committee had little or no general circulation. President Luther of Trinity College called attention to it some years ago in one or two vigorous speeches published in the newspapers. Professor Henry A. Perkins handled it in a very comprehensive article in the *Yale Review* of October, 1913. Professor Münsterberg touched on it in his book "*The American*."* German school teaching, he shows, is more exacting, accomplishes the same intellectual result in much less time than the American; the school hours each day are longer; Saturday is not a holiday; the children study more at home; vacations are not so long and are not spent in such complete idleness.

The reason for our laxness is, he thinks, that "America has been able, at least so far, to afford the luxury of this loss of time; the national wealth permits its young men to take up the earning of their daily bread later than European conditions would

* Pages 375, 379. See also Eliot, "Educational Reform," pp. 158, 160.

allow." He might have added that American native quickness and ingenuity enable some of us to make up in after life for defects in education. He suggests the co-education of girls with boys in the public schools as a cause. The education has to be kept down to the level of the girls, and American girls could hardly stand the severe education that is given to German boys. But the same laxness is found in our private schools, where girls are not educated with the boys. The cause, whatever it is, is much deeper than that and probably is one that is inherent in the general life and ideas of our communities.

President Harper, of Chicago University, treats these two lost years under the head of waste, and the proximate cause of it he assigns to the utter failure of our schools to train their pupils in accuracy.

"Language cannot describe the incalculable waste involved in the cost to society in the case of every individual, whose training fails to secure for him this accuracy. The whole future life of the man is involved.

"It is an apparent and lamentable fact that our preparatory education fails in this particular. In certain respects I am confident that we excel the Germans in the preliminary stages of educational work, but in this respect we fall far short, not only of the Germans but of the English and the French as well." ("Trend in Higher Education," p. 82.)

This lack of accuracy is, he thinks, increasing. It arises largely, he believes, from the dissipating

effect of so many subjects. The introduction of science studies only made the inaccuracy worse, by increasing the number of subjects to be smatteringly learned.

Since President Harper's book was published the evil has not diminished and complaints of it are now heard from all sides. Bad grammar, I done for I did, I come for I came, the misuse of them and of shall and will are said to be worse than ever, even among the professional and educated classes. The newspapers recently reported that in applying for the position of teacher of mathematics in a high school, an applicant wrote 400 words with 22 errors. Nine out of 16 college graduates who applied for the same sort of a position wrote feasible, attemps and trigonomtry as correct spelling. The recent excitement over phonetic or reformed spelling is given by some as the cause. But those who have investigated most carefully give the simple reason that spelling is no longer taught in the old thorough manner. There is probably no longer time enough for it; and how can there be in our modern information system?

Easy-going, happy-go-lucky, careless methods have undoubtedly been devoloped among our masses by the abundant resources and good fortune of a new country built up out of a rich wilderness. The losses by fire in the United States have increased steadily year by year in greater proportion than the

growth of population. The per capita loss by fire greatly exceeds that of any foreign country. It was \$2.62 for us in 1911; in England \$0.53, France \$0.81, Italy \$0.31, Germany \$0.21. One cause of this may be our flimsy method of constructing buildings. But a large part of it is due to the hasty, careless, inaccurate habits of our people. We shall be forced to something different in time.

Our two lost years affect of course our colleges as well as our schools. Heavy attacks have been made on the colleges, and it has even been proposed to abolish them altogether. The lounging, slouching collegian 19 years old and pursuing the studies of a French or English boy of 17 is compared to the alert and disciplined West Point Cadet. An increasing number of parents, it has been said, do not want their sons to study strenuously after the European manner. They regard college as a place for social distinction to be obtained by making valuable acquaintances, gaining athletic prominence, cultivating good fellowship and society manners, and picking up a certain amount of knowledge. The ability to cram hastily a few courses for examination is the important thing to acquire, and is the best preparation for after life. But hard severe work in study is bad in itself; not only useless, but degrading; and no man should be compelled to work hard and steadily at anything that does not interest him. The hard workers gain nothing in after life over the quick

examination crammers, who learn to become men of the world or of fashion. In other words, it is the college life that is important, that delightful life, and not serious or strenuous mental training in difficult subjects, which is an old-fashioned delusion, largely abandoned and ought to be abandoned.*

The greater advantage in after life of the loafer who merely crams for examination has been disproved by facts and statistics over and over again, and all summarized in President Foster's book, but apparently, with small effect on some of our intelligent classes. Disgusted with results and hearing on all sides that our education is lax, nerveless and sentimental many of them welcome the movement to cut down the college course to three years, so as to get rid of as much of it as possible. Why should they not complete it in three years, when many of them even now, complete it creditably in four, and in addition take elaborate side courses in glee clubs, baseball, football, amateur journalism and other branches of learning, which require frequent absences and excursions in term time.

But the criticism I have mentioned of our young men being two years behind European students, applies to our serious hard working students, as well as to the rest. In spite of all that is said, there is a very large leavening proportion of hard workers.

* "The Place of Study in the College Curriculum," *Pop. Science Month.*, Dec., 1913.

The majority of college students is serious minded, but not as conspicuous as the gay minority; and the point is, that somewhere in their education these earnest fellows lose two years or drop back two years behind European youths.

This condition of affairs was recently made prominent when American students began to offer themselves as candidates at Oxford University in England for the scholarships of \$1500 a year, offered under the will of the late Cecil Rhodes for the purpose of more firmly uniting the English speaking race of both continents. Two of these scholarships are offered to every state and territory in our Union. It was something of a shock to discover that our boys sent to Oxford, though usually selected from the best, required two years' more preparation than was required for good American Colleges. The Rhodes scholarship examinations also require certain physical fitness in games. In this, too, according to the report of the Commissioner of Education at Washington,* our candidates are very deficient, because instead of the English compulsory games and exercises for all pupils alike, we have only team and track athletics for a selected few.

Following out the comparison in schools, it is found that up to about twelve years of age there is not a very great difference, as measured by the questions asked in examinations, between our boys

* Report of 1912, p. 47.

and the European boys in the matter of progress. In some things the European boy is ahead. But after about twelve the European boy advances with far greater rapidity and at about fifteen has gained two years on our boys, a distance which he maintains to the end, and often, it is said, makes it three years.

Not only in the classics, but in physics, mathematics, geometry, algebra, trigonometry, French and German, the practical, useful studies, as we call them, the European boys of sixteen and seventeen pass examinations as hard as those set for our college entrance examinations at nineteen. In some difficult science subjects, boys under fifteen in Europe pass examinations as difficult as those set for college entrance in this country for boys of nineteen.

In the question of the study of the English language there has been a great deal said in this country, to the effect, that as a boy is to speak it all his life, it would be better to drill him in it than in the dead Latin and Greek; and it is supposed that we are doing that in place of Latin and Greek. But our efforts to that end, in spite of all the discussion and talk about it, have failed. "It is notorious," said President Harper, "that our college education has been unsuccessful in its efforts, when indeed effort has been made, to teach students the use of English."* Comparison seems to show that in Eng-

* "The Trend in Higher Education," p. 250.

land the boys are compelled to pass harder examinations in English, and at an earlier age than ours, and English is more correctly and attractively used in conversation, newspapers and books. The cause of this will probably be found in carelessness and queer notions on the subject in our homes and general life, against which the schools and colleges seem to be powerless.

These facts, if truly stated, seem at first to point to the conclusion that the harm occurs principally between the twelfth and fifteenth year, a period, it will be observed, including the age of puberty and of powerful physical growth, or effort to grow, in every boy. European boys seem to gain with rapidity in that period a power of mental concentration and grasp in mathematics and science, as well as in languages, whether modern or ancient, which enables them to pass far ahead of our boys.

While the advantage the European youth gains in that period between twelve and fifteen is striking and impressive, it may very well be that it is not all caused by the handling of him in that period; but equally caused by his previous training, not only in school, but by his parents at home. It may very well be, as Professor Perkins points out, that the failure of parents and early teachers to develop mental and moral fibre from the beginning, will render useless the efforts of the best teachers that undertake to manage him between twelve and fifteen. On the

other hand, if he is handled well from the beginning, he arrives at twelve with such sound nerves and physique, such miniature logic in his small mind, that skillful teachers can advance him with surprising and harmless rapidity, through the marvellous growing age of puberty.

The quieter, more simple and repressed life European children lead when in control of their parents, as well as of their school teachers, instead of our early appeal to their emotions and social excitement, may have something to do with the rapidity of European mental training between twelve and fifteen. We use discipline and severity as little as possible. Our children are seldom taught even to control their voices, or enunciate with care. The ridiculous reason is given that they will become affected and unnatural. They grow up with drawling, unpleasant tones, hasty head-over-heels speech, giggling and talking at the same time, and no appreciation of the beauty and perfection that is possible in spoken language. A nasal-toned, giggling child, instead of being corrected will be "pushed" in society and encouraged to giggle and rattle away as rapidly as possible, as the sure road to success.

European teachers and parents, through long conservative work, uninterfered with by sudden popular demands or untried theories too suddenly adopted, seem to have learned almost unconsciously exactly what to do. Having made that discovery long ago,

they are let alone at it and not jumped about here and there by popular demand. Education seems to be an art, which must be learned empirically by experience, tested through long periods by results, and not by *a priori* theories, mere logical reasoning, or mere democratic ideals.

When Herbert Spencer wrote his famous essay on education in the decade 1850 to 1860, there seems to have been in England a good deal of turmoil in teaching, the result of the recent development in science and the application of science to industrial life. New kinds of education were demanded to suit the changed times; many theories were being tried; and there was apparently a great deal of overworking and breaking down of pupils. A large part of Spencer's efforts in his essay was directed against the absurdity of forcing excessive work, regardless of health. He reasoned out the whole subject from the scientific side, from physiology, biology, natural history, and the development of races. He swept together, analyzed to their simplest terms, all the educational theories up to that time. It was a monumental work, marking an epoch in educational discussions, and seems to have been taken to heart in England; for great changes for the better took place. But in this country we seem to have disregarded these sound principles or, more accurately, perhaps, the public and the mob and the great numbers we attempt to handle, will not allow our teachers to

follow them.

Outside of his insistence on the absolute necessity of unimpaired youthful vigor, the rest that Spencer says might be largely grouped under the old principle that in the end the child must teach itself; that education consists in forcing or leading it to teach itself; that the human race has progressed from cave dwelling solely by self-instruction; that the progress of every individual to-day is the same; that the supposed miracle of what we call the self-made man is not a miracle at all, but merely self-instruction or self-discipline severely enforced by circumstances upon an unusually able or responsive nature; that when we attempt the same result by what may be called artificial means or education, we must conform to the natural process of mental evolution; that there is a certain sequence in which the faculties spontaneously and naturally develop, and if that sequence is rightly seized upon by the teacher, mental power can with perfect safety to health be advanced far beyond what it would naturally attain.

Teachers are better paid in Europe, and are more competent and skilful. The average pay of our public school teachers is only \$62 a month. In California and the District of Columbia they get a little over \$100 per month which brings up the average. But in other places vast numbers of them get only \$40 or \$50 per month. In our colleges cheap professors and expensive buildings has unfortunately

been our motto. In Europe, the buildings are moderate and the professors well paid and of a superior class. In one-third of our colleges the salaries are below a thousand dollars. In the remaining two-thirds, the salaries are often only \$1500 or \$1800. Only a comparatively few institutions pay \$2500 or \$3000, which means that a man with a family cannot live as becomes his position, must skimp and worry all his life and lay by nothing for his old age. The football or baseball coach is well paid and often has received, it is said, \$5000 a year. The best talent in the country is drawn to that department, and the poorest talent to professorships.

The whole European school environment is different from ours. A child is expected to work hard. Little pity is shown the dull or lazy; they are not allowed to hold back the more progressive. This severity seems to be enforced without the injury to health, or the fear of injury to health, which is the frequent cry in this country. We shall have, we are told, wrecked nervous systems and crippled lives unless vacations are lengthened and work, already lax, is made easier.

I have seen a recent letter from an American who was investigating at Tours a large French public school of 500 pupils, working all day from 8 A. M. to 7 P. M. with two and one-half hours for recreation and lunch and a half holiday on Thursday, or about forty-six hours a week ten months of the year,

with a week at Christmas and at Easter; and yet healthy looking, bright and happy. Our school hours and courses, the writer said, would be regarded in France as a joke.

Human beings, young and old, were made for work; and when in normal health can stand with perfect impunity great strains of it, or what seems to some, like great strains. If this were not so, civilization would never have advanced to where it is. When in our normal, sound condition, fatigue is a medicine, a benefit, even a pleasure, and contributes enormously to growth and development of both body and mind. But once throw our condition off the normal, throw the machine out of adjustment, or fail to give it sufficient nutritious food, and hard work will certainly become an injury; at times, a fatal one; and fatigue, instead of a rugged pleasure, will become a terror, as it is to the invalid and the neurasthenic.

In an interesting pamphlet, "Health and Education," issued by the Health Department of the State of Pennsylvania, it is asserted that the key to the success of the German system of severe training of school children, lies altogether in their knowing how to keep up the child's natural vigor, and in actually keeping it up and not neglecting it. Frequent brief physical exercises are used during school hours in the German and also in the excellent Scandinavian schools to freshen up the little ones and break up

the stagnation of blood and mind that comes from long sitting still.*

Investigations seem to show an extraordinary amount of defective physique among our public school children. It is traceable, apparently, to absurd violations of the rules of health in their homes; ignorance or queer ideas of what will furnish proper nutrition; and, as a result, an excess of tuberculosis in middle school age with defective breathing, bad nerves, throats, skins, eyesight, hearing and other deformities, with inferior vitality. In many schools, especially in cities, children coming from home with little or no breakfast are unfit for mental exertion, and the penny lunches, or cakes in the middle of the day make matters worse. Children of that sort cannot stand severe training. As the school funds cannot always be used for buying food, various benevolent associations in many cities have raised money from people of means, and regularly supply food to the school children at midday. But to really make the system effective and to supply food that would offset the neglect or ignorance in American homes, would require very large sums.**

According to the reports, essays and addresses, our public school children must be the most unhealthy and abnormal set of creatures in the world. Either the examiners are exaggerating, yielding to the tend-

* See also Eliot, "Educational Reform," p. 184.

** McCann, "Starving America," p. 19.

ency of highly trained physicians to invalid everybody, and see danger in everything, or there is shocking ignorance in American homes, and we have not learned to co-ordinate our educational systems with our physical needs. Many of the instances of the complete breakdown of bright, promising children seem to have been caused by an extreme forcing of them, a phase of what is known as our cramming system. Instead of being taken along quietly from the beginning with a complete balancing of the physical and the mental by which very severe training can be administered without the slightest harm, the little unfortunates are pushed and rushed at certain times to extremes, often to gratify a very unintelligent ambition on the part of their parents.

This question of impaired vitality among the masses of our people is a serious one. Besides the investigations which seem to reveal such startling evidence of it among public school children a great mass of information has been collected by the National and some of the State governments under the inspiration of the movement for pure food laws. This evidence is supposed to show widespread adulteration of food, depriving it of its nutritive value that it may keep better and sell with more profit to the maker. Deleterious acids, drugs and "preservatives" are used. Under the stress of modern competition people are induced to live on nutritionless and often poisonous concoctions and compounds. Their chil-

dren insidiously starved by these are found so much lowered in physical tone and resistance that it is difficult to give them much mental training without breaking them down completely.

Our more highly educated classes, our leaders of thought and opinion, well nourished themselves, understanding the requirements of nutrition and with the intelligence to seek sustaining food, do not, it is said, yet realize the frightful prevalence of queer notions and queer food among the masses. Universal military training might force correct knowledge on them. Nothing equals an army for teaching the laws of health. The long centuries of universal military service have no doubt given to European nations their advantage over us in this respect.

The breaking down of health under our system has also been supposed to be largely due to the lack of interest in their studies and lack of conscious progress, which inevitably follow faulty methods of training.

"The sense that work as he may," says President Eliot, "he is not accomplishing anything, will wear upon the stoutest adult, much more upon a child. One problem in arithmetic which he cannot solve, will try a child more than ten he can solve. One hour of work in which he can take no intelligent interest, will wear him out more than two hours of work in which he cannot help being interested. The trouble with much of the work in the public schools is, that it is profoundly and inevitably uninteresting to the childish mind." ("Educational Reform," p. 164.)

CHAPTER II

THE AMERICAN INFORMATION OR CULTURE SYSTEM

ONE cause of our difficulties is that from certain necessities in our national life our education has turned from the old mental training and discipline to the furnishing of information and inspiration to conduct, health and good citizenship. This largely accounts for the apparent backwardness of our young people as compared with those of Europe. It is a most fundamental consideration going deep into our national traits and character powerful enough to account for almost anything. An educational system, it must be remembered, is a result as well as a cause. A people tend to make it like themselves, to make it what they want it to be. In turn it becomes a cause and reacts on the people.

If it be asked why our education has become cultural instead of disciplinary, one answer can be found in the extraordinary instrumentalities, outside of education, which we have developed for furnishing information to the masses. It is a development of our strenuously sincere democracy. In the last century or so, we have developed the most extraordi-

narily effective information giving system that has ever been known. It is not confined to schools, but is carried out in our whole social system.

The development of the Sunday newspaper in the last thirty years, as a quick, easy and cheap furnishing to the masses of every kind of information on every conceivable subject, is one of the wonders of the world. There has never been anything like it. Its effects on us are as yet incalculable. The innumerable courses of lectures, study clubs, and lyceum courses maintained among our people since Colonial times and always popular with them have long been a surprise to foreigners. Professor Münsterberg comments on them very intelligently, and instead of the usual half concealed contempt of foreigners, he regards them as of "incomparable value" for the masses. If we add to these the later development of the university extension courses, women's clubs, summer schools, free science lectures, the cheap magazines, not to mention the Young Men's Christian Association, the Christian Endeavor Societies, and the recent extraordinary development of correspondence schools, we have what seems to outsiders information giving gone mad.

So far have we carried our systems of information, that they are tending to make churches unnecessary and bring about that "decay of religion" of which we sometimes hear. The information systems supply instruction in morals and the conduct of life which

was once supposed to be the peculiar province of the churches, and to be irretrievably bound up with dogmas and miracles.

But that is not all; for there remains to be mentioned the famous Chautauqua Summer Lectures, which, beginning in a small way in 1874, at the lake of that name in New York, now often number over 10,000 attendants, receiving information about everything from mathematics and Greek to political economy, hygiene, patriotism, teaching, religion and eloquence. They are held in the open air, largely attended by school teachers on their vacation; and there is also connected with them a four years' imitation college course of reading, conducted by correspondence, tested by examinations and rewarded by diplomas. Over 200,000 people begin this course every year. Over 300 similar smaller chautauquas have been established in different parts of the country. The system is most typically American in the optimism, enthusiastic idealism and inspiration of its tone and methods. The hungry eagerness with which the information and eloquence of these Chautauqua Schools are sought by classes of people who have not had higher or collegiate education and whose lives are apt to be intellectually monotonous, has long been a source of astonishment to every foreign observer.*

* Kemp, "History of Education," pp. 340, 341; Münsterberg, "The Americans," pp. 384-392.

Trained minds of liberal education, having resources within themselves and able to gather knowledge without the aid of lectures or teachers, will always be inclined to sneer at the Chautauqua. But they must remember that the Chautauqua and our whole information system are the results of the instinctive impulse of a democratic republic to protect itself by knowledge from the fate it knows will befall any republic that is not based on intelligence in its masses. Democracy in the end must turn to learning and culture to save itself.

With this almost hysterical impulse to furnish great quantities of intelligence and knowledge and furnish them to as great a number of citizens as possible, it is no wonder that our public school system is constantly drifting away from mental training. The more you incline towards the information side the larger numbers you can reach; the more they incline to come and listen to you. But the more you incline to training and mental discipline, the fewer the numbers you can handle and fewer will voluntarily come to you. In commenting on the summer session of Columbia University, President Butler in his report of November 2, 1914, says that if it had offered merely popular instruction and information instead of academic tests and standards 50,000 would have been drawn to it instead of 5000. This fact, or vice, as some would say, runs all through our education, not only in schools, but in colleges, and

explains a great many characteristics and anomalies.

Another element or feeling that has seemed to influence the character of our education is our love of popular eloquence, grand world-sweeping ideas, great thoughts, as they are called. We have regarded it as our mission, as advocates of democracy, to spread the great ideas among all classes, to take them from the closet and library, and make them the common property of all men and make the man in the street the advocate of them as well as the hermit scholar, as he is called, at his desk. Thousands of us have regarded the acquiring of such grand ideas as the true purpose of education and are impatient with drill, mental discipline and training as a mere old-fashioned waste of time and energy.

It is not surprising, therefore, if men of business find such deplorable inaccuracy in school graduates whom they take into their offices. English, French and other foreign critics ascribe these defects to the lack of thoroughness in our schools. Mr. Lowell, head master of the Boston Latin School, traces all such defects beyond the schools and finds their origin in certain impatient, careless, hasty traits of American life. It is there, he says, that average boys and girls are made to believe that it is enough to half learn a lesson, to half know a principle, to half explain a problem, to half understand an explanation

or assignment.* This seems to touch the real origin of our difficulties more than anything that has been recently written. The more we study the subject, the more the real causes seem to lie in the general ideas and feelings of the community rather than in the schools, which are merely echoes of the community.

We shall learn, perhaps, some day to balance better between training and information; or the real remedy may, perhaps, come when parents understand more about it and learn to insist on having the balance as they want it. We must never forget the fact that a certain amount of training is necessary before information can be appreciated, absorbed or used to a useful purpose. Some kinds of knowledge require a great deal of training for their use. Otherwise it is casting pearls before swine. You might pour military information on a person for many years without ever making a trained soldier of him; and the same can be said of law, medicine and hosts of other subjects.

Another phase of the subject is our enthusiastic American eagerness to attain an object in a rush. We expect to accomplish, and accomplish quickly, more than in the nature of things can be accomplished with immature minds. We want wonderful and perfect results out of material that always was

* Report, Commissioner of Education, 1912, p. 14; New York *Evening Post*, September 7, and September 17, 1912.

and always will be inferior. Do what you will you cannot give to 15 years the maturity of 20 or 25 years; or to 20 years the maturity of 30 years. One reason why they succeed better with education in Europe may be because they do not strive for this excessively early maturity; they do not rush for wonderfully quick results; they do not try to give to childhood the grand ideas, rhetoric, eloquence and all sorts of smartness and shrewdness that belong to complete growth. By long experience they have learned that more is accomplished in the end if children are taken along quietly and simply with only very thorough training in certain things in which thoroughness can be insisted on and enforced without any dangerous appeal to emotions, nerves and health.

Another influence which directs our public school teaching towards acquiring information rather than training is the necessity all leaders of public opinion as well as teachers, feel of off-setting the coarseness and ignorance of the masses of their pupils, not only the foreign immigrants, who are very numerous, but native children from inferior homes and sordid, unsanitary associations. This is largely the origin of the "culture courses" of which so much is heard. Our half million teachers have proved themselves splendid refiners and civilizers.

For some years teaching the elements of good citizenship and municipal and social reform has been

rigorously insisted upon, and it certainly seems of profound importance. Nature study, interesting the pupils in birds and their protection, the trees, the plants in their beautiful as well as in their useful side, is found to be a wonderfully refining and civilizing influence, especially now when the city populations have so vastly increased and whole masses of childhood have so few natural opportunities for such things and seem buried in the most abject forms of Philistine materialism.

For the same reason an appreciation for music and the decorative arts, not to mention the fine arts, is valuable. Hygiene and the evil of drunkenness are also subjects; so also are gardening, housekeeping and woodworking. It is all excellent and admirable. Information is valuable. Knowledge is power. People would have been better in the past if they had had certain information that we now have. There is no denying all that. Our systems of information have done great things for our people. But we must remember their limitations and not expect from them mental training which they are incapable of giving. If we devote ourselves to information excessively, we need not be surprised that we are behind Europe in accurate training. In some lists of courses and recommended courses that are published, culture studies seem to be the important part, are often mentioned first and the time that is left goes to training in language, geography, arithmetic and history.

Civics has long been a subject in our schools; but now we are told that it has not been properly taught, because it merely explains the machinery and working of government. It must branch out into the great field of social problems and the modern efforts to improve mankind.

"Community health, housing and homes, pure food, public recreation, good roads, parcel post and postal savings, community education, poverty and the care of the poor, crime and reform, family income, savings bank and life insurance, human rights versus poverty rights, impulsive action of mobs, the selfish conservation of tradition and public utilities." (U. S. Commissioner's Report, 1913, p. 10.)

Admirable subjects, every one of them, and the list might be greatly extended. Why not add the abolition of advertisements that disfigure natural scenery, and the suppression of unnecessary noises in cities? But the wayfaring man cannot help remarking that all these excellent subjects are matters of information, not of mental training; and are discussed in newspapers and magazines which a well trained mind can read.

There is a line of argument constantly appearing in educational essays and addresses, which is very plausible and specious. It usually begins with an interesting or eloquent description of the wonders of modern enterprise and mechanical ingenuity, the wide application and utilities of steam, electricity and chemistry, the subtleties of municipal and political

corruption, the broadening sphere of governmental functions, and the complicated duties and demands of citizenship. Admiration for these triumphs and marvels of success, and enthusiasm for the solution of the coming problems having been aroused the inference is drawn that a greatly increased number of these subjects must be taught in schools and that the number must be still further increased in the future. An ordinary man nowadays, it is said, needs a deal of information merely to enable him to live safely and survive. If he is to be a voter and intelligent citizen, the amount he must know of the functions of modern governments, democratic society and industrial organizations is far beyond anything dreamed of a few generations ago.

But is the inference sound, that all this necessary information, or any considerable part of it must be taught in schools or even colleges? Will you not be swamped and smothered if you attempt it? Is it not impossible in the few years of early youth? Is it not a sounder inference to say that you should do just the opposite? That in the face of such overwhelming masses of facts to be known you should turn from attempts to cram information and devote yourself more rigorously than ever to mental discipline, to training, invigorating and broadening youthful faculties, so that they can handle for themselves the increasing knowledge, complications and problems of the world.

Efforts are now on foot to bring facts and all sorts of scenes, events and episodes of the past and present before school children by means of moving pictures so that they shall have nothing to do but sit still and absorb entertaining information. In some parts of the country there are lectures in the schools on how to avoid accidents from automobiles, street and railway cars. A "consulting psychologist" has been established in some schools to tell when children are object, or hand minded; report on their motor control, nerve centres, touch and muscle sense, whether sensitive, irritable or proud, and whether discharged energy is regular or irregular. All these things are useful, admirable and progressive, provided they are incidental and additional to real training. But when they encroach more and more on regular mental discipline, and tend to absorb the whole school system, we need not wonder that our children are two years behind those of Europe.

For twenty years and more we have been at sea among innumerable experiments of this sort, jumping from one to the other. A sarcastic writer complains that we have had to go through the clay modelling fad, the basket weaving fad, the girls musing with chisels and saws in school, the Dutch windmill and Hiawatha wigwam, the King Lear and Othello for twelve year olds, the corn, beans and cabbage in the front yard fad, *et cetera, et cetera ad nau-seam.*

It has actually been proposed that every school should have ten cages in the yard or on the roof, each cage containing four or five chickens. Some of the cages are to be fed by the children with natural food, like whole wheat and corn, natural rice, &c., and the other cages to be fed with denatured and demineralized grains, degerminated corn, polished rice, meat pulp, white biscuits and other food stuffs now so largely consumed by human beings. As the children will themselves feed the chickens every day and see those fed on the denatured stuff slowly degenerate and sicken, and those fed on the natural products flourish and become brilliant in plumage, the greatest reform ever accomplished in education and pure food will, it is said, be wrought. The rising generation will learn the greatest of all lessons for Americans, the relation of food to animal life, will refuse to eat trash and will have strength to endure the severest education and mental discipline.*

There are also in some places a school dentist and a school nurse. A dental nurse, to clean the children's teeth once a month, is on trial. Bad teeth, it is said, are often the cause of slow progress in studies. Cots to give some of the children naps at noon have been introduced. It has been found necessary to raise special funds to supply public school children with food nutritious enough to support moderate mental effort. Philanthropic societies in large

* McCann, "Starving America," p. 198.

cities spend these funds for school lunches. Immense sums were expended some years ago in elaborately heating school houses accompanied by the most scientific ventilation. Now it is all attacked as a mistaken wrong idea and a failure; and the open air school and the open window school are advocated with temperature down to 60 degrees and sometimes as low as 50 degrees.*

All these additions, inventions, conveniences, facilities, precautions, expansions, experiments, withdrawals of experiments and new experiments have for some years been heralded and exalted by an endless use of the words progress, efficiency, betterment and other phrase-making until, after reading the reports and articles, one is ready to believe that our educational system must certainly be the one most advanced and perfect thing on earth. A feeling of pity and horror for what must certainly be the decadent, careless and neglectful systems of other nations comes over us. But a little careful investigation reveals the cold fact that in spite of it all our children are in mental ability and progress at least two years behind the children of European schools.

The reply, of course, is, that under our circumstances in this country, it is more important to furnish refining information to our crude masses than to train their minds; more important to give them

* U. S. Commissioner of Education, Report, 1913, pp. 118, 120, 122, 123, 594, 595.

correct ideas about reform politics, duties of citizenship, human uplift, have special nutritious food for them, and a nurse to clean their teeth once a month, than to drill them in reasoning processes. The European way is not our way. We may have only 157 school days in a year, as against Europe's 210, and our school day may be much shorter than the European school day; and that merely shows that we accomplish our result with less time and effort.

This condition of things must, it is said, continue until its work is accomplished; that is, until our American masses are more refined out of their crudeness, their homes more sanitary, their children better nourished, their ideas of cooking and the quality of food, as well as of politics and citizenship, reformed. Not until then can we abandon our information and "cultural methods" and adopt the mental discipline education of Europe. Every nation must work out its own method of education, build it out of its own conditions and circumstances, make it out of its own soil and climate. We must go through to the end with the phase in which we find ourselves; and it may be another generation or two before we can change.

Meantime, the shifting and changing of arguments, methods, novelties and experiments under our system is really most extraordinary, and each change is supposed for a time to be a panacea and make all the past ridiculous. Sometimes oral, sometimes writ-

ten examinations are denounced or upheld. Sometimes writing should be taught by the vertical method; sometimes by the oblique; sometimes by the horizontal; sometimes by the improved vertical. "Oh, don't teach them so much out of books," one set of people say, "teach them something not bookish that will amuse them." Schools should be more in contact with life, say some. No, say others, there is a great advantage in "separating the pupils for a time from the main current of community life."

Teachers and high experts of long experience and study allow themselves to be swayed to and fro by popular demands; adapt themselves to these demands, and dread them. There is a scramble to suggest a taking novelty, a new shift or theory; or, if nothing of that sort can be found, then an "emphasis" or an "extension."

An opinion, or experiment has for a number of years been prevailing in our educational world that any and all subjects are good for mental training and one about as good as another. It is true, of course, that the effort to acquire any sort of information and apply it is in a degree a mental discipline. It may train memory, if nothing else; and memory trained to retain knowledge permanently is a foundation of education. But the experience of the world has shown, and we are now gradually learning it over again, that certain subjects, difficult ones like mathematics, language, certain parts of

modern science, dead languages of varied and strong expressiveness, are as necessary for developing the mind as severe physical exercises for developing the body. No one would attempt to become an athlete by playing croquet or become a laboring man by knitting stockings, and to attempt mental development by culture courses is on the same level. At the same time, we have to admit that for certain refining purposes the culture courses, when not obtained at home, may have to be taught in public schools. The question is, How far shall they go? You have the two methods: information furnishing and mental training of the reasoning power. If you use more of one, there will be less time left for the other.

At this point a suggestion may perhaps be in order, drawn from the recent experience of Pennsylvania. The Health Department of that state, established by the Legislature in 1905, was given large powers to collect statistics of disease and unsanitary conditions, and apply remedies. The department found that the best remedy was to educate the masses, and reveal to them the shocking ignorance of the laws of health in which they were living. "We found it impossible," says Bulletin No. 58, "to take poisons out of the streams until the people were educated. We have learned that under a representative form of government, we cannot hope to enforce laws which are much in advance of the intelligence of the people."

But this Health Department did not throw the burden of the education, or rather information, on the schools. It did the work itself by distribution of bulletins, by agents of various sorts, by a little army of trained nurses stationed in every county of the state, by traveling exhibits, by medical examination in schools and advice to parents. Individuals, old as well as young, were followed through all the twenty-four hours of the day, their sleeping rooms, their sitting and working rooms, their food and water, even the ventilation of their churches, everything investigated. Families once taught became missionaries; and the clergy and lecturers helped on the work. Like all investigations into the life of our masses, it revealed extraordinary superstitions about food; gross ignorance and inability to distinguish what was nourishing from what was worthless in the innumerable cheap concoctions and prepared things that modern enterprise has put upon the market. "They found many people trying to live on starch alone." * Great numbers of the children and adults were half starved because of their ignorance of what kinds of food to eat.

The great value of the information thus given is unquestionable and in this instance it was furnished by the proper department of government. But in the crude development of most of our American com-

* That is modern food stuffs whose principal nutritive element is starchy matter.

munities the furnishing of this and similar valuable information has been thrown as a matter of course on the schools. They have staggered under it for so many years that even some of our most intelligent educators seem to think that it belongs to them and can be furnished by no other agency.

It does not belong to them at all. It is better done by other agencies of government. It was thrown on the schools by accident, because the unsanitary, ignorant and half nourished condition of our masses revealed itself most strikingly and appealingly in the little children coming to the public schools; and as there was no regular agency of government established for dealing with the difficulty, the teachers very naturally and properly took it up. They could do nothing else. The conditions were so bad that all other considerations were overwhelmed. There is no use in applying severe mental training to half nourished children unable to breathe through their noses, with defective eyes, ears and throats, coarsened with anarchistic ideas and pessimism and with minds dulled by bad air and attempting to live on starch.

In the volume called "The General Education Board," for the year 1915, reviewing the work of the Board since 1902, there is a most profoundly interesting description of the way in which that powerful organization with over \$30,000,000 invested capital undertook to improve education in the South.

It began by letting the southern primary schools entirely alone and devoted itself to teaching good farming; to rescuing the white and negro farmers from perennial insolvency; showing them how to double their cotton and corn crops; enjoy life; attain independence, thrift and self-respect; raise nearly all they ate on their own ground instead of mortgaging their cotton crop for the year's supplies at the country store. This information furnishing was accomplished in conjunction with the National Agricultural Department at Washington by means of hundreds of demonstration fields and sometimes whole farms all over the south, by thousands of bulletins, circulars, agents and lecturers, by boys' Corn Clubs and girls' Canning Clubs, a complete literary bureau and practical demonstration organization of the most searching kind, infused with the genius and leadership of a remarkable and devoted man, Dr. Knapp.

The principle underlying the whole undertaking was that, if the economic condition of the masses was improved; if they were rescued from insolvency and poverty, they would build up schools of their own with their surplus money. Without improvement in their economic condition, it was worse than useless to give money to their struggling schools.

Contemporaneous with this great and successful undertaking, agricultural information was being introduced in public schools, especially rural schools,

all over the country, and this was supported by certain obvious arguments, which are well enough up to a certain point. The powerful influence and income of the General Education Board was asked for the support of this method. But after careful consideration the Board declined the suggestion on the ground that it was impractical; was not properly part of school work; and missed the vital element in the situation, which was the incompetency and consequent poverty of the southern farm masses, who must be reached directly in the present by going to their farms, and not to their schools. The school, says the Board, "is already overburdened by making it the sole custodian of the growing child, the sole sponsor for everything he gets—a tendency all too plainly evident in urban education."

It is in this way, by other agencies of government gradually taking from the schools the burden of information about teeth cleaning, pure air, nutritious food and all the other excellent odds and ends, that our schools will come into their own again, return to real education, which is mental training, and be more nearly on a par with the schools of Europe.

In the same volume of the General Education Board is an account of the development of secondary education or high schools in the South. Ten or twelve years ago there were hardly any high schools in the southern states. The people were largely indifferent to them; some despised them; the laws of

some of the states were unfavorable; and in some instances, prohibitive. The General Education Board set to work to persuade the southern people to build up by their own efforts a secondary school system. It was quickly discovered that it could not be done on old academic lines of training. The southern people had a complete contempt for anything of that sort. The only use they could see in any system of secondary education or high schools was their use in helping to settle everyday, homely problems of southern life. They must deal solely with the southern economic difficulty, the problems that have followed the collapse of the old regime. Accordingly high schools were started, and could only be started, on the basis of teaching agriculture, domestic arts, and business methods, as the central and main ideas. In short, mere information.

This method was advocated and upheld by educators and people generally, who well knew that there was more than that in a real education. But in the particular instance of the South, they said, that anything more must be added on in the future, after the pressing needs of southern life and present ignorance of how to live on the crops of the land and shelter yourself in a house had been overcome.

It was, in fact, a going back to the primitive education of a primitive race. Absolutely necessary of course, because better or higher mental training presupposes that the race has passed from savagery

into agricultural skill, from sleeping on the ground in dirt to sleeping in clean beds, from exchange and barter to the finance of merchandising and accounts.

A very interesting chapter might be written on exactly why and how a race so old as ours lost in this country its agricultural skill, and even skill in home comforts and food, which the rest of the race remaining in Europe retained. Within the last fifty years it has been found necessary to reteach agriculture to our people. Many millions of dollars must have been spent in these efforts; not only by the National Government at Washington, but by state governments, by agricultural schools and colleges and even by the fertilizer companies. Teaching of agriculture has been forced on public schools, especially in rural districts; and even universities have taken it up. The springing up of agricultural colleges and schools and their popularity in the last thirty years is a marvel. These schools and colleges often find that they have to teach cooking and housework.

Their statements of the best methods of cultivation are sometimes regarded as modern or American discoveries; but they are not. They are simply the old knowledge of Europe revamped and restated (badly stated sometimes), to suit our people. More than a thousand years ago the Saracens, wonderful farmers, made a garden of southern Spain. They were driven out and their fertile soil went largely

to waste. High farming of the most productive kind is as old as the hills in France, Belgium, England and Germany. In England the average wheat production after over 500 years' use of the land is over 30 bushels to the acre. In the United States with only 200 years' use, it is barely 15.

In European countries agricultural skill has been passed along largely from father to son and from neighbor to neighbor, and has been maintained in that way for centuries. But in this country it does not seem able to survive in that way. It has to be taught by institutions at great public expense. There have always been individual instances of high agricultural skill, as for example, in Lancaster and Chester Counties in Pennsylvania, in parts of New York and New England, in the Shenandoah and Cumberland Valleys, and other places; but it did not spread to the country at large. Are our masses hopelessly and helplessly institutionalized? When once good farming has been retaught by institutions, will our people be able to hold it and pass it along in the natural way?

In trading and inventive shrewdness, in intellect and reasoning power, in political sagacity, love of civil liberty and military skill, the race in this country retains all its European characteristics, intensified and improved. But for some reason its masses suffer a strange lapse and failure at the frying pan and at the plow.

We must also remember another serious difficulty and one that can be remedied only slowly. With millions of children thrown on the hands of our poorly prepared and poorly paid teachers, they naturally drift to the easiest methods; and what are these? Mere mechanical methods; striking an average that will suit the mass; mere memorizing and other tricks.

These methods have been denounced by prominent educators, beginning with President Eliot, from all over the country. The attempt they say to handle children in masses has failed; there is no such thing in nature as an average child; why not try to strike an average between a goose and an eagle? When to this supposed average impossibility you attempt to apply mere mechanical or so-called scientific teaching, individual teaching (the only real teaching the world has ever known) disappears and you have left "the most monumental failure in American life." *

The effort of our public schools to produce pupils all alike, depressing the bright ones for the sake of the dull ones, is of course the line of least resistance for the teacher and solves many difficulties in the easiest way like their other habit of doing nearly all the talking in a recitation, leading the pupils step by step to answer questions without mental effort. Of the uniformity evil President Eliot long ago gave an

* Articles and letters in *Ladies Home Journal* from August, 1912, to January, 1913.

excellent description.

"They are all kept together, day by day, so far as possible. The bright ones never work to their utmost, and are frequently marking time; the slow ones are urged forward at a rate which drives some of them to despair; and the ideal of the class is of equal preparation, equal capacity, equal progress, and equal attainments. If, at the beginning of the year, the children are obtrusively unequal in capacity or attainments, it is an inconvenience to be regretted. The teacher will not be able to 'handle her class' so easily as she could if they were all of the same mental size and strength. If at the end of the year they have not been pretty well evened up, the teacher has been less successful than she could have wished." (Eliot, "Educational Reform," p. 274.)

All the same our great school system with 19,000,000 children goes grinding on and it is certainly better than no system. It seems to be all we can attain at present. To have individual teaching instead of mechanical seems to imply a revolution. Efforts have been made, it is true, to overcome these evils of uniformity and they have met with some success in the last two or three years. All sorts of plans have been suggested. One of the most interesting has been to classify children according to their physiological development rather than according to their school age in years.*

* Report of U. S. Commission of Education, 1913, p. 137.

CHAPTER III

THE REPORT OF THE BAKER COMMITTEE ON LOSS OF TIME IN EDUCATION

AN exhaustive investigation into the causes of our loss of two years in education was begun as far back as 1903 by the National Education Association, but for some years with little or nothing accomplished. In 1907 the effort was renewed with vigor and under the leadership of Mr. James Baker detailed questions were submitted to presidents of colleges, superintendents of schools, professors, teachers and men of business. An immense field was covered; and at last, in 1913, a comparatively full report was reached, which has been published as U. S. Bureau of Education Bulletin, 1913, No. 38.

The committee, in effect, decided that there was no reason or excuse for the loss of two years; that the culture or information-giving which caused that loss in the school period was an absurdity; that the college course was two years too long; that it should end with the sophomore year; and that the present junior and senior years should be given to professional study. This would begin professional study

at about the age of twenty and bring it within the years of greatest energy and adaptability. Too long a period of preparation in artificial education unfits for action. There is a great loss of interest and energy in a long preparatory period of unmotivated study.

They had great trouble with those horrible words, culture, cultural and culture courses, which have fastened themselves upon us, and are used to prop up all sorts of vagueness. They were, they said, the chief cause of all the waste and loss of the two years. They attempted to define the word culture, but it was found that each member of the committee had a different definition of it, as has everybody else. Why not abandon it altogether, and speak of information and information courses as contrasted with mental training? Certain kinds of information, of course, give power and advantage, or are inspiring and encouraging to the young. But they should be given incidentally and by the way, because a great deal of devotion to mere information will not bring culture. "In the name of culture," as the committee put it, "much time is wasted without securing real culture or substantial character which is the prime element of culture." Real culture is best attained by mental training; is never in the end attained in any other way.

The committee condemned unqualifiedly the doctrine that, "one subject of study is as good as an-

other." The reasons for the superior progress of European schools seemed to them to be, (1) that such subjects as foreign languages and elementary sciences were begun earlier than in America; (2) absence of marks and examinations; (3) care of pupils as individuals; (4) greater length of school year. The remedies they recommended were, (1) cease the multiplication of subjects; (2) choose the important subjects and stick to them; (3) distinguish between first rate facts and principles and tenth rate; (4) do not try to teach everything that is good; (5) confine elementary education to mastering the tools of education. This, they said, will not prevent inspirational information or so-called cultural work on the part of the teacher. The colleges, say the committee, demand too much in quantity in their entrance requirements. "The great mistake of our education is to suppose that quantity and strain constitute education. Education is a question of doing a few essential things well and without overstrain."

The committee's plan for carrying out their ideas seems, at first, to consist principally of cutting off from liberal education the junior and senior years of the college course and turning them over to professional study. They would also change the age of the elementary school period from 6 to 14, to 6 to 12, that is, cutting two years from it, and adding those years to the secondary period, making it 12 to 18

instead of 14 to 18. Children, they believe, are held too long in elementary studies and would progress faster if secondary studies were begun earlier as in Europe. All the fundamentals of elementary education, they say, facts, habits, dexterities, sentiments, are taught before 12 in Europe, and why not here?

If their recommendations stopped here, they would seem to amount to very little. They would merely be an attempt to bring us on a par with Europe by cutting off the last two years of our education, without any change in its quality. We would still be two years behind in quality. The advantage of the European youth is that he enters a profession or life with a quality of education and a mental ability to solve intellectual problems that our youth does not attain until two years later. To merely throw our youth into his profession two years sooner is a gain merely in appearance, not in reality. Our college boy at the close of his sophomore year when 20 or 21 years old, can pass no higher examinations than the European boy of 18 or 19. It will be in vain for you to pretend that stopping our boy's education at 20 or 21 makes him the equal of the European boy, because what our boy has at 20 or 21, the European boy had at 18 or 19.

But from a careful reading of the committee's report, I take it that they recommend something more than this mere cutting off of time. Although they do not seek a remedy in changing the ideas and

mental habits of the American home or community, where many believe the real source of our difficulty lies, they, nevertheless, favor a complete change in the quality of our school education. They would eliminate an immense number of our information school courses, and substitute for them the mental training of Europe in difficult subjects like mathematics and languages. Only in this way can our two lost years be made up.

If such a plan were attempted with any degree of suddenness, there would be a terrible clamor over the good things thrown away. Our whole information system, and the new subjects and experiments suggested almost every year, would be so reduced that they would, in effect, be wiped out. Such a change is hardly possible until the mass of the people become convinced of its necessity.

It would have to be gradual in any event, because our teachers and high authorities are not only wedded to the old system, but are not trained or competent for the new. Some of them believe that our information system is still necessary in our peculiar circumstances of having to refine crude, ignorant masses of inferior home associations. To merely cut out information courses would be of no avail, and, in fact, worse than useless, unless what was left could be conducted by the severe methods of mental training. We have hardly yet developed in any numbers the class of teachers that understand

that sort of training. And yet we must come to that mental training in the end if we want the same results that are attained in Europe.

Our inferiority to Europe, one of the committee, Mr. Suzallo, explains, comes from the incalculable waste of our information method.

"Fearful that the course will not be covered, that some fact will be left out, we hurry, crowd, and coerce children till they have no further interest in books when school is done. We have taught them many facts superficially, but we have shorn them of the power to educate themselves. Children who have been in the presence of good literature for years never seek it again, because the teacher has maltreated both the subject and the children with his pedantic insistence on details. They acquire no more facts when school is done, because they have not been taught to work in freedom, without the admonitions and compulsions of the teacher. We must aim to do more for human power, by striving to do less in the way of giving students information." (U. S. Bureau of Education, Bulletin, 1913, No. 38, p. 31.)

Pottering with long courses of information from professors, too much guidance from them and taking too much time, are also, Mr. Baker says, the curse of our higher education in college and university.

"The Ph.D. candidate proceeds, always under careful guidance, through four years of high school, four years of college and three or four years of graduate work. Any one whose originality and efficient power survive the test is indeed a proven man, and worthy of responsibility." (Id., p. 53.)

One of the members of the committee, Mr. Smiley, frankly admits that they are recommending nothing

less than a revolution. Merely having children recite, and mere interesting lecturing and talking to them, must be abandoned. Our excessive reciting from textbooks must be reduced. "In much of the work abroad," says Mr. Smiley, "there is no textbook except as made from day to day by the slow extension of the student's notes, which are made with care and deliberation and most sharply supervised. The habit of formal accuracy in *minutiæ* is acquired so early that the question of its being a hardship seems never to have arisen."

In visiting European schools Smiley was profoundly impressed with the high standard of competency demanded of teachers before they were allowed to teach, the favorable home influences of the pupils, the greater length of the school day and year, the hard work accepted cheerfully and as a matter of course; and yet,

"While the work of the school room has zest and fire, there is complete absence of nervous hurry and drive; indeed, there seems to be a leisurely certainty of reaching the desired goal. One gets the impression that the getting of knowledge is the incidental thing and the student's ability to handle what he knows, is the teacher's greatest concern." (Id., p. 48.)

CHAPTER IV

HISTORY OF TEACHING AS AN ART

ONE of the difficulties in reasoning about education is that it is not an exact science. It is doubtful if it should be called a science at all in any accurate use of the word.

Any boy who comes before you to be educated is a product of an almost infinite past. He is the result of thousands of ancestors reaching back to the dwellers in caves. Those ancestors have made him what he will be. What his parents gave him at birth is a mere atom compared with what he has received from the long line behind him. In fact the parents have been largely the mere conveyors, the mere channels to carry to him that past; and what they have contributed to it, as it passed along, is comparatively slight.

Remember, that he could educate himself in the street without you, survive, become a multi-millionaire and endow the professorship you hold. That is no imaginary sketch. The greater part of even the civilization of to-day is carried on by not well educated men. European civilization in its early

stages was wrought out and carried on by men who could not read or write. In fact, if we wish to stand by the literal truth, some of the worst setbacks civilization has ever received, the horrible cruelties of religious wars, persecution, hanging, burning for mere opinion's sake, were upheld and carried on in their worst atrocity by priests who could read and write, and who, as a class, had the monopoly of reading and writing, and withheld it from others. Even in the inspiration of personal freedom and free government we find it often in its most heroic and undying form among Stone-age savages without an alphabet, as well as among the lettered and artistic Greek.

It is this important fact of the extreme recentness of artificial education in the history of the race and the unalterable tendency of every child to become, in mind and morals, what his race has been in the past, to fulfil, in short, the racial type, that makes all reasoning about education so difficult, and often makes of statistics mere delusions and nonsense. It makes it extremely difficult to tell whether one method of artificial education is better than another, because in the man produced you cannot separate, with any definiteness, what is due to his native impulse from what is due to artificial education. Among the innumerable experiments in our public school system, it is quite common to find adverse and favorable opinions of the most competent teachers, equalling

each other on some very important and well tried method. Sometimes it seems as if almost any method could be made to produce almost any kind of results. Many successful methods are often in a few years abandoned as useless and ridiculous. So we find endless arguments on the merits and demerits of the elective system, the free elective as against the group system and so on; one side able to cite almost as many facts and arguments in its favor as the other.

Whether the education of fifty or a hundred years ago was better or worse than our own, is still disputed. Those who say it was ridiculously inadequate are asked to explain the origin of the remarkably exact and thorough scholarship of the New Englanders of the last century; the historians, orators, poets, lawyers, physicians and theologians; the Prescotts, Motleys, Longfellows, Lowells, Channings, Phillipses, Parkers, Websters, Everettts, Sumners, and Garrisonss, educated before 1850.

It is still impossible to prove whether independently of mere accumulated information, the modern brain is any keener or better in its reasoning processes than the Greek mind of over two thousand years ago. In his excellent essay on medical education, President Eliot, after describing the absurdity of that education before the Civil War, finds it very difficult to explain why so many admirable and competent physicians were produced under it, and he concludes that they were developed afterwards in

practice; that is to say, they were developed without education. Self-made men work up plausible arguments for abolishing not only colleges and universities, but technical schools of science. A boy out of his own inherited impulses may educate himself in the most apparently unfavorable surroundings and become a Franklin or a Lincoln; or, with apparently good impulses and ability, and apparently all circumstances in his favor, he may become a nobody.

It is impossible to tell with certainty where any individual, famous or obscure, acquired his education; whether the meritorious part of it was acquired in his home in childhood, in the community in which he lived, from his companions, from his teachers in school, or from professors in college, because he is descended from a long line of thousands of ancestors, who seized their education everywhere or anywhere. Endless arguments might be maintained as to whether the distinguished group of literary men in New England in the last century attained their eminence from the communities in which they were born, or from the colleges from which they were graduated.

"The result gained by education to-day," says President Harper, "is probably the same that our ancestors secured, whatever method they employed. We have yet to learn, perhaps, that it is with education as with religion. Access to heaven is no longer restricted, even by the most rigid sectarians, to a single path. It is important for educators to keep in mind that formal training is a thing of varied possibilities, and that

for different individuals, of different temperament, of different geographical locality, of different social environment, there may be different methods." ("The Trend in Higher Education," p. 140.)

Interesting statistics have been prepared from the numerous modern biographical cyclopædias and volumes of "Who's Who" in the hope of showing that some one method of education is the best. But the figures merely show distinguished and prominent men arising out of every method. Small or obscure colleges often produce a surprising proportion of eminent persons. About the only striking fact obtained was that 87 per cent of the names in "Who's Who" are of people who were brought up in country life. That may possibly indicate that the nervous energy, talents and originality which raise men to distinction receive their strongest nutrition in rural self-reliance and quietude.

"Much of the discussion respecting utility of college training is irrelevant, for success in life proves nothing on one side or the other. Every observing man knows that the qualities on which success depends are inborn. College instruction cannot impart brains or common sense. Cannot turn the sluggard into a model of industry; can do little towards removing the vanity which resents advice. It can make only an honest effort to cultivate the material provided by nature." (Professor J. J. Stevenson in *Popular Science Monthly*, Vol. 64, p. 202.)

Nevertheless we know certain general and broad results. We know that an illiterate, ignorant community is inferior to an educated one because facts

all over the world prove it. We know that men of what is called liberal education have, as a rule, a wider outlook and attain a certain distinction in the community. We know that boys of European education are about two years ahead of boys of American education.

We know that it was a wonderful discovery for humanity when they found that by training indoors with books they could give in a few years, in this artificial way, an amount of mental development and knowledge which under natural methods out in the world was not usually attained in a lifetime. So remarkable was it that its limitations and best methods are not yet thoroughly known. The race is still unaccustomed to it. If pressed far or carelessly it breaks down their nerves and health, which have to be brought back to normal by a change to tools or weapons or some imitation of the natural life which the race has led for most of its existence. But even when used bunglingly or inadequately this artificial education accomplishes valuable general results as can be seen in all history.

The earliest instances of education among half civilized people are usually mere memorizing, often the mere memorizing of legends, traditions or religious beliefs with little or no attempt at training the reasoning powers by difficult things like mathematics or language. Wonderful feats in training the memory are often accomplished when the mind devotes

itself to that alone. It can be carried so far as to atrophy and almost destroy the reasoning powers. But as civilization advances its education takes more the form of developing and training the reasoning powers. During the last two hundred years many efforts and experiments have been made in Europe to discover the exact nature of this part of education. The tendency of these efforts has usually been to reduce teaching to great simplicity; so much so that in some instances the question has arisen whether they were not making it so easy that the pupil never learned to overcome difficulties.

This study of education and the reduction of it to elementary principles seem to have begun with the English philosopher Locke, who lived within the years 1632 to 1704. Before his time there had been various new methods of education invented in the Reformation period, some of them successful and containing good ideas; but no one undertook to reason out the underlying principles. Very likely children had been often well taught in the old Greek and Roman schools by teachers who worked out by experience what seemed to be the best methods, without any attempt to analyze or describe those methods for the benefit of posterity. Locke laid down the two obvious principles that have ever since been accepted. First, the importance of individual teaching, because, as he put it, "there are scarce two children who can be conducted by exactly the same

method"; and second, the importance of what he called freedom, by which he meant leading the child voluntarily to exert itself in learning without undue forcing. His principles and their subsequent enlargement by others apply for the most part to young children, below the age of seven.

The next development of the principles was in France by Condillac, Pereira, Rousseau, Itard and Seguin, the last named living almost in our own time and spending a large part of his life in America. Most of these made their investigations and developed their methods and apparatus through attempts to teach the deaf and dumb and idiots. Their principal advance on Locke was in proving the importance of beginning by training the muscular system and the senses of touch, sight and hearing into the most complete normal efficiency. This was based on the fact that knowledge and the functions of the brain have in the past history of the race been developed through the senses and the muscles; and that without the senses and their trained use there never would have been any knowledge or reasoning. This conforms to more recent conclusions that, although for convenience in speaking or in writing, we often consider the mind and the body as distinct and separate from each other, yet, in nature and as a fact, they cannot be so separated. They are indistinguishably bound together; so much so, that mental diseases or insanity can be a part of indigestion and

the insane are usually treated and cured, if at all, through improvements of bodily functions.*

Since Locke's day the principle that the pupil must be led to teach and train himself has been more developed and emphasized. Education, it is said, is merely the evolution, the drawing out of innate powers. How can it be anything more? How can it be anything more than to encourage the budding of the potentialities gained by the individual in the long line of the experience of his ancestry? His own will, his own self determination must do the work as it did it in his line of ancestry for a million years.

Many systems or methods of teaching have arisen which attained great renown and were carried out with enthusiasm. The Pestalozzian School System of leading a child along by a natural, simple method of observing or reasoning from the known to the unknown had a great vogue and wonderful apparent success a hundred years ago, and then failed and passed completely away. So of the Lancastrian or Monitor System; the Battersea School System; the De Morgan, and so on. Eminently successful for a time, especially in the hands of their inventors, they grew stale in the hands of others, wore out or something happened to them. This is one of the important facts in education, recognized by all observers, that any teaching theory however excellent may in time wear out. You may say that possibly

* Boyd, "From Locke to Montessori."

the main idea or all that was valuable in it passed into the general commonplace knowledge of the world. But that supposition does not fully explain everything, for often the main idea was known before, and the success was due to a method, a personality or even to apparatus.

Herbert Spencer in his essay on education, written a little time before our Civil War, investigated all these systems, and found them to consist in nothing but the application of the principle, that each pupil must in the end teach himself and is his own best educator. It is probable that instead of any one of the systems being the discovery of an automatic or mechanical method capable of universal application, as was often supposed, it was more likely the mere intuition, enthusiasm, indomitable purpose and special skill of the inventor, or of assistants whom he personally inspired. One is impressed with this idea after reading over the numerous descriptions of successful methods in Kemp's "History of Education." They seem to indicate that the success in each instance was largely a personal matter.

The system or method that has best held its own, as a mere method, is the kindergarten, invented by Froebel of Germany, which has spread very widely in this country since about the year 1870, and some of the last statistics of it report 8,880 kindergartens in 1,105 cities and towns. It followed somewhat Pestalozzi's method, took advantage of the willing-

ness of children to play, organized their play with blocks, cylinders, pattern making, bead work, sewing, mat plaiting and so on, so as to cultivate their intelligence through their senses and develop the habit of reflection. It was based on the old principles. A school, Froebel said, should be a garden in which children are the plants, which should grow of themselves by their own activity, with as little interference as possible.

It is often much ridiculed and defects in it shown. Professor Münsterberg, for example, though proud of the system having been imitated from Germany, admits that the child coming from it into the primary school is desultory, that its chief merit is its spread of better ideas of the care of children among parents, and that as a school system, it is a passing fashion and on the wane. Nevertheless, its hold in this country and in some others seems to be strong and increasing.*

Its ideas that play is the natural form of a child's activity, that constructive exercises are the most educational forms of play and that creative activity or producing concrete objects develops mental power and the assimilation of knowledge, are, no doubt, sound and valuable up to a certain point. They have had much influence in America on other grades of

* "The Americans," pp. 381, 382; Report of U. S. Commissioner of Education, p. 152; Kemp, "History of Education," pp. 291-297, 321.

school work, manual training, modelling and drawing. The question, however, should be investigated whether the characteristics of ease and playfulness, which may be well enough for the very young, have not had too much influence on our already lax education of older children. The laxness of the kindergarten may be the cause of its popularity with us.

Recently another system, very much like it, has appeared, the Montessori Method, emphasizing individual teaching, rather more than the kindergarten, which is inclined to teach by groups. The Montessori Method accomplished surprising results in Italy, where it was invented by Dr. Maria Montessori, who was brought up in the enthusiastic associations of the great Italian revolution for liberty and unity which destroyed the papal states, and the rule of priests in schools and civil government. Her system has spread all over Europe and is being experimented with in America and, for that matter, in the whole world.

There is a great deal that is not new in it. In fact, she professes to be restoring the methods of Seguin, the famous French teacher, who in his turn owed a great deal to Itard, and all of them were much indebted to Locke. Dr. Montessori's method consists of only two main principles: First, freedom, a term which might be misunderstood, as implying absence of all direction or restraint; but with her it means merely a removal of hindrances,

not confining the children to one seat, for example, not interfering with their normal growth or faculties, encouraging, leading them to do everything themselves voluntarily. In short, leading them in self-instruction, the very old and fundamental idea. Her second principle is training the muscles and the senses of touch, hearing and sight in the first stages of education before seven years of age. For this she has developed wonderfully ingenious apparatus and methods. That is also an old principle. The senses are in her opinion the basis of all the higher life of man. To insure the fullest development of the individual in later life, the senses must be cultivated in early childhood. If neglected in childhood, it is impossible afterwards to make them what they might have been. Well developed senses before six years old are more important, in her opinion, than reading and writing, which her pupils after their senses are trained pick up rapidly, often of their own accord.

The old idea of the importance of individual training is, of course, a part of her method, because it is involved in her principle of freedom, as she calls it, or self-instruction. She dispenses almost entirely with formal class teaching.

The numerous books that have been written analyzing her from every point of view, seem to show that she is another instance of an indomitable, inspired person, who has taken the old principles and even some of the old apparatus, and added to them

most remarkable inventions and apparatus of her own. She has wrought out a combination which, in her own hands, and to a large extent in the hands of others, accomplishes excellent results, which will, no doubt, continue for some years.

In this country, and indeed in many parts of Europe, while the obvious merits of her system have been freely acknowledged, it is regarded as having decided limitations, and only a little superior to the kindergarten, which might settle the question by adopting her best points. Her system is capable of application only to very young children, and although Dr. Montessori is studying to extend its application to all ages, that result has not yet been accomplished. Some regard it as in no way superior to methods we already have in America, and which we have gradually developed out of our own experience. Its plan of taking very young children more and more away from their parents is considered decidedly objectionable.*

It is probably impossible to invent any one system or set of apparatus or machinery that will forever be effective to educate complex and evasive human beings. The kindergarten has come nearer to permanency than most of them. But the history of all of them shows in the most striking way the fundamental principles, especially that one to which Herbert Spencer reduced all the systems that had

* Report U. S. Commission of Education, 1912, p. 26.

been known up to his time, namely, that the pupil must always in the end teach himself; and has never been taught and never will be taught in any other way. The teacher must have the art to lead the pupil into self-instruction, and there have been almost as many ways of doing it as there have been children in the world.

All these systems proceed on the idea of making education very easy and playful for children under seven, but it will probably not do to carry ease beyond that age. Suppose you made it all delightful, playful gradation from the known to the unknown. Would any habit then be formed of facing the difficult and the complex? And what then would happen when the youth stepped out suddenly into the competition of actual life? It is said that in the Roman army they trained and drilled the troops in heavier armor and with heavier weapons than those in which they would fight. The Romans were not altogether models for imitation; but there were some things that they understood.*

* See also Wiggins, "Children's Rights"; Hopkins, "How Shall My Child Be Taught"; Kirkpatrick, "Fundamentals of Child Study."

CHAPTER V

VOCATIONAL TRAINING AND HOME STUDY

INCREASING competition and increasing demand for skilled labor brought about some years ago a demand for vocational training in both schools and colleges. Our education of the masses was said to be too literary and ideal; too far from the actual and the practical. After all the best education was to teach a boy to earn a good living and teach it as quickly as possible.

So we rushed into vocationalism and began to flounder about in it in another set of extremes and novelties. Some of these vagaries are discussed with fine irony and very enlightening sarcasm by the Commissioner of Education in his report of 1912. It was first intended to introduce "the new vocationalism" directly into the public schools, and it was expected to do wonders for them, and satisfy parents who were continually crying for something practical for their children, something that would start them on their life work quickly, instantly, with no time wasted on "fancy frills."

Curiously enough, however, one of the first diffi-

culties encountered was a clamor against it as a concealed attempt to establish an aristocracy by separating the public school children into two classes, one to be composed of mere workers, looking forward to a trade or livelihood and nothing else, and the other to be composed of scholars and culture children, who would put on airs and despise the other class.

To start this panacea, there had been organized an association called "The Vocational Guidance Survey," which very soon came back with the sad announcement that it was impossible to guide children in choosing a future vocation or choosing subjects that would lead to it. They, therefore, wanted their name changed to "The Vocational Education Survey," because it might be possible to start some system of education to educate children in choosing a vocation or to show them what they would be in after life. That is to say, they invented a new system of education and then had to invent a second one to explain what the first one meant. But even in this things seemed to be badly mixed, because in some towns parents thought the best preparation for the future would be music and dancing, and in other towns they gave the same prominence to carpentry and cooking.

Some of the arguments in favor of the vocational theory implied almost a complete overthrow of the public school system. That system, it was said,

began not with the modern attempt to educate literally all the people, but with a plan to extend to ordinary people, who happened to desire it, the classical or "Latin Algebra" education of the upper classes. From this, by no means correct assumption, a chain of reasoning was built which ended in making the public schools mere preparatory industrial training grounds for the manufacturing enterprises of the country. The reasoning went on pretty well until it met the fact that a very large number of pupils are either sensible or stupid enough to want a more general and less specialized training. As they are part of the people their wishes must be gratified; and it was supposed it could be done without turning them into the much dreaded aristocrats by carrying on their work and the industrial training of the others all in the same building, and keeping the two classes as much mixed up as possible.

But if a vocational training or "something to really help them in after life" is so much desired, why not put them to work at once in factory or mill, where they will "really" learn an occupation instead of playing with it or pretending to learn it in the public schools? That was the method of the old apprentice system, which had undoubted advantages. The school system or public education was established to give to the masses some of the advantages of that general education which people of means could buy, not to create another form of the apprentice

system.

So the extreme vocational theory in the public schools was not altogether satisfactory, and the Commissioner quotes denunciations of it from prominent teachers. The vocational theory, one of them says, is as big a humbug as the play movement. Both of them miss the main point of education. The whole theory, says another, of what children will need later in life, "debases the idea of the school from a public purpose, large and social, to a personal purpose small and selfish."

Other reasons go still deeper and attack the whole idea of an early vocational choice on the same ground as they attack the elective system. Even the average college boy of 18 or 19 is unable to judge of his own aptitudes, or of the training best suited to his development; and a school boy is still less capable. To force such choices on children is ridiculous. It is a well known fact, that even in colleges only a small number know from the start what calling they are to follow, and in schools the number must be still smaller. To decide early in school or college what your vocation is to be ignores one of the chief functions of school and college, which is to reveal the youth to himself and disclose his aptitudes.

Therefore to get rid of such a nuisance with as little offence as possible, they changed the definition of vocational. It does not mean, they said, mere industrial vocation, "but a preparation for life in

every field of endeavor.” They went back, in short, to the old definition of education maintained by all sorts of conservatives for hundreds of years. It is enough to make Herbert Spencer rise from his grave; for that definition is expressed almost in his own words, and he devotes nearly a hundred pages of his famous essay to proving it. The object of education, he sums up, is to teach “how to live, not how to live in the mere material sense only, but in the widest sense.”

Fortunately, the best opinion has now drifted round to a more or less complete separation of vocational teaching from the regular public school system. That it must be carried on independently is now clearly seen and the dread of turning the regular public school children into aristocrats is dying out. When we examine the recent legislation in various states to establish vocational teaching, we find it consisting for the most part of departments or schools supplementary to the general public school system, and intended to give instruction to the children of the masses in industries, agriculture and domestic science, either all day, part time, or in the evening.* Sometimes the instruction is under the same roof as the regular public school, sometimes not. It is a distinctly separate school system; a system of trade schools, apart from the original public schools and intended to train wage earners.

* Report of U. S. Commission of Education, 1912, p. 281.

It is sometimes spoken of as a modern apprentice system. This is more as it should be; and this trade teaching and these trade schools are reported as doing great good, and saving all sorts of delinquents and misfits from the human waste heap. It is believed that it saves children from too early labor in mills, produces more efficient workmen and tends to improve the quantity and quality of American manufactures. But the attempt to combine it with the old regular public school system, or absorb the old system into it, was an anachronism, and might have been a public calamity.

The demand for vocational teaching, or, as it is now more properly called, separate trade schools, came originally from the manufacturers and social workers among the delinquent classes. Not a few manufacturing concerns started trade schools of their own, and these have become known as corporation schools. The Browne & Sharpe Manufacturing Company of Providence, R. I., has had an apprenticeship system, very like a school, for fifty years. Hoe & Company, New York manufacturers of printing machinery, have had a school for apprentices for forty years. Recently the number of these corporation schools has enormously increased. Not only manufacturing but retail and wholesale establishments are adopting them and it is supposed that banks and other financial institutions will finally have them. The system has developed so far that repre-

sentatives of corporations having such schools met at the University of New York in January, 1913, and organized the National Association of Corporation Schools. They are believed to be the best of all trade schools; very practical; close to the real shop and real work; no imitation work about them. They have the best features of the old apprenticeship system, without the corruptions into which it finally degenerated; and they take from the public schools the burden that was threatened to be placed upon them.

The subject has now divided itself into three classes. 1. Manual training, which is mere training of hand and eye in the use of tools for general cultural effect in any school. 2. Vocational training, which is a mere teaching the elements of certain trades as a preparation for industrial schools. 3. Corporation and industrial schools which are out and out trade schools. Within these divisions all sorts and kinds can be found, varying in the different States and often defying accurate classification; but each one supposed to be good in its place.

But we are never happy unless making constant changes and inventing new substitutes; and now they are trying to push the trade schools back a little way into the regular public school system by what are called vocational courses in the public schools, to give those intending to go into the trade schools just a little trade teaching to start them. Development

of population and industries has forced on such a necessity of industrial education that it tends to overwhelm all other educational ideas.

The important point is, that though vocational teaching has its value and should be begun before a boy is too old, yet general education and training, liberal education, as it is called in the case of colleges, is also necessary, and must not be lost sight of. The evil in the old vocational movement was its tendency to narrow down the general training of the schools to the mere teaching of a handicraft.

“Manual training, though of undoubted educational value as sense and muscle training, has fallen short of the hopes based upon it, to the extent that it has been formalized. Industrial and vocational training is clearly open to the same danger; for the more or less mechanized imitation of industrial and vocational process, apart from the exigencies and stimuli of real conditions, may prove to be only another kind of manual training.” (General Education Board, 1915, p. 69.)

Our latest novelty of not requiring home study for school children, or requiring as little of it as possible, has been commented on by more than one competent person, as going to the root of the difficulties in American education. Schools are advertising for reputation by the suggestion that all work is done in school hours, and little or none at home. In the symposium in the *Ladies Home Journal* during the autumn of 1912, prominent public school teachers all over the country came out against

home study. In the end, the *Journal* itself took a stand against it as useless and wrecking the health of the children.

It all fits into a certain popular way of looking at things which can be expressed by saying, "Well, we pay you for teaching our children, so why should you not do it? Why should we, or they, be bothered by their having to study at home?"

Of course, if they go through the same amount of individual study and personal effort that would be gone through at home, it may be well enough and very good. But do they? Close inquiry seems to indicate that possibly the reason for the outcry against the injurious effects of home study is that it is merely a continuation of the slip-shod information methods of the schools themselves, and comes under the same general criticism. As the home part of study interferes more with parents and occurs during the fatigue of evening, its evil is more apparent and it is specially attacked. In European education, we are told, the whole system being different, home study is not supposed to be objectionable or injurious.

"The European student spends his home study in making himself facile and sure of that in which he has been carefully and accurately instructed during his class hour, while the American spends his preparatory hours in learning, too often in slovenly and inaccurate fashion, that in which he might have been instructed, in but a fraction of the time, while the time of his class hour is spent in examination of the extent of his fail-

ure in learning, leaving little time for real instruction or for drill in testing the accuracy of his understanding of the matter orally presented. . . . The class work (in Europe) is marked by an eager gripping attention which to the stranger is startling." (U. S. Bureau of Education, 1913, No. 38, p. 47.)

The assault on home study has by no means been acquiesced in by all our best teachers. Many of them regard it as another proof that we have missed the vital element in all education, namely, that the pupil should teach himself as much as possible, and be taught as little as possible. All teaching should consist in teaching him how to teach himself; teaching him to train his faculties so that he can do anything or take up any subject, or study of his own initiative and by himself.

"Our teachers," says a prominent professor, "do too much teaching and leave too little to the initiative of the pupil. He does not acquire mental and moral independence. He depends upon his teachers to drill him in the class room where his attitude is receptive rather than aggressive. He does not learn to wrestle with the angel for the scholastic blessing. Instead of this, he regards the assignment of tasks to be taken home as an imposition; and his teacher's attitude almost encourages this belief. Too much time is given him for study in school, and his parents come to think that home study is hardly contemplated in the school program. . . . The result of this is that, if an assigned lesson has not been learned, the overworked teacher has to make good the deficiency by going over the work in class for the benefit of the delinquent. In short, the pupil fails to learn how to regulate his own time effectively and to assume the responsibility for his own success or failure."

(Professor H. A. Perkins in *Yale Review*, October, 1913.)

The words, aggressive attitude, in the above quotation, are an excellent phrase to describe what is required; and receptive attitude exactly describes the reverse or flabby condition. They are in exact accord with the great principle laid down by Herbert Spencer, who might have added those phrases to his vocabulary. Doctor Virchow, a German authority, has also expressed the idea with aptness.

"It is only by means of independent work that the pupil learns to hold his own against external difficulties, and to find his own strength in his own nature, in his own being the means of resisting such difficulties and prevailing over them."

The Briggs Report of the Investigating Committee at Harvard University in 1904 also lays stress on this point and complains of the lack of intellectual vigor from too much teaching and too little studying. Everything tends to leaning more and more on the teachers. The private tutoring for examinations which has greatly increased of recent years and on which considerable sums of money are expended in some places, has also been condemned as of the same evil tendency.

"All human teachers are dangerous," remarks Dr. Cabot in his recent suggestive volume, "but necessary. We are tempted to depend upon them, not merely at the start, but so permanently that they pauperize instead of enriching us." ("What Men Live By," p. 261.)

The aggressive attitude is often, under our system, not acquired at all during education, and has to be

picked up afterwards, or forced by stern necessity in later life. It is often never acquired so far as intellectual or liberal education is concerned, but only in some occupation or business.

Too much of our education is accomplished, as keen observers have noticed, merely by the pupil growing older and maturing while we are educating him. Of course, if plenty of time is taken, the boy may finally learn something. But the value of artificial education consists in teaching certain things to the very young. It has often happened, for example, that a youth of about twenty or twenty-one, learns in three months the whole Latin requirement for entrance to college, which usually takes three or four years for younger pupils. But learning the difficult subjects during the plastic state of extreme youth is the advantage of artificial education. That three or four years in extreme youth is believed to give more mental development for the majority of children than can be attained by acquiring the same amount in three or four months at the maturer age of twenty-one. Moreover, only exceptional persons can perform the feat at twenty-one.

The rapidity with which certain older children sometimes learn a subject has led to a theory which is still drifting about in certain quarters, that it would be better to have all children begin school when more matured. But it is probably a delusion of a few particular instances. Other children when

more mature find the greatest difficulty or impossibility in learning what they could readily have acquired when younger. With our school children two years behind those of Europe, we have, however, in effect, carried out the maturity theory and must have accomplished any merit there is in it.

It is the acquisition of the aggressive attitude very early in youth that gives self-made men who struggled against adversity their great advantage. In many instances all that they had in youth was that extremely developed aggressive attitude wrought into their fiber by habitual struggle for a livelihood or for life itself. In after years they look back upon themselves as having had no advantages and are rather too much given to boasting that they have succeeded without advantages, when, as a matter of fact, it was their lack of advantages forcing on the aggressive attitude that enabled them to succeed at all. It was their contemporaries with all the so-called conventional advantages who were the ones who may have had no real advantages.

In commenting on the ease with which the American masses are led to throw away their money on all sorts of "get rich quick" schemes and rotten investments, Professor Münsterberg remarks:

"We must not forget the superficiality of thinking, the uncritical, loose and flabby use of the reasoning powers which shows itself in so many spheres of American mass life. . . . It is difficult not to believe that, fundamentally, sins of educa-

tion are to blame for it. The school may bring much to children, but no mere information can be a substitute for a training in thorough thinking. Here lies the greatest defect of our average schools. The looseness of the spelling and figuring draws its consequences. Whoever becomes accustomed to inaccuracy in the elements remains inaccurate in his thinking his life long." ("Psychology and Social Science," p. 264.)

CHAPTER VI

CLIMATE, SCIENTIFIC PEDAGOGY, SIMPLICITY IN EUROPE, ATHLETICS

THE cause of our failure to equal Europe in rapidity of mental training has been assigned by some teachers to the American climate, which does not encourage out of door life like the European climate. But we have all sorts of climates in this country, most of them very favorable for out of doors. To that they reply that the reports from school teachers all over the country complaining of injury by school exercises and asking for less severe training, even when what they have is accomplishing so little, show that there must be some unknown factor in the climate which prevents the application to children of such severe training as is applied in Europe. But it is more likely that the unknown factor or the injurious factor lies in the foolish ideas of our people about food, cooking and preserving their physical vigor. With out of doors all round them they are ignorant of how to use it for either pleasure or health.

In recent years we have heard a good deal in this

country about scientific pedagogy. Researches have been made, facts collected and reasoned out with logic and ability. But it has been suggested that the whole tendency of this reasoning and research has been to discover easy methods of teaching; scientific or automatic methods to lessen friction otherwise known as hard work. In fact automatic methods in everything is the modern craze. The teachers who enthusiastically devote themselves to this science become so interested in the fascinating problems, that, as Professor Perkins puts it, they tend to "assume the whole responsibility and supply for the child to lean upon, those very mental qualities which the child ought to be acquiring for himself."

In the symposium in the *Ladies Home Journal*, during the autumn of 1912, one of the critics of the public schools, himself a teacher, said that under the present system, teachers of classes were found by actual investigation to be talking from 70 to 80 per cent. of the time and that they soon drifted into the art of enabling a child to answer almost any question with hardly any mental exertion, by skillfully leading him up to it.

The assertion is attributed to James Martineau that, "the power to drudge at distasteful tasks is the test of faculty, the price of knowledge, and the matter of duty." You can find this idea quoted or expressed in other forms through pretty much the whole literature of education. All the virtues and

powers of mind and character we possess, says the man of science, were bred by thousands of years of distasteful and fatiguing drudgery and danger in war, in hunting and in endless severe and often fatal struggles with the forests, the winds, the rain and the ocean. Artificial education in the schools can succeed only by the same principle.

Side by side with this principle, we find its opposite stated in the literature of education, namely, that the pupil will exert himself more and train himself best in the subject in which he is naturally interested and likes. It is true enough, and forms a large part of the basis of the elective system, but it can be carried too far. Suppose, for example, the subject he likes has little or no mental training value. Suppose he is notoriously weak in mathematics and consequently dislikes and hates them. Suppose he has always disliked anything that requires severe or minute accuracy. Suppose he likes things that can be memorized and is weak in reasoning power. Suppose he likes generalities, or grand and ennobling ideas, and always shrinks from details and organization. Such weakness may sometimes be caused by physical or nervous defects, bad digestion, bad assimilation, or an undeveloped muscular system. One would suppose the advice of good physicians should be sought; and efforts are now made to this end in schools and colleges. But physicians do not always grasp the situation. There is a whole un-

explored world here. The physical culture people, the boxers, prize fighters and Muldoons, understand it better, have understood it, I suppose, all the way down from the times of the Gladiators. It is strange that horsemen, stable grooms, and dog trainers know so much about putting an animal in condition and "intelligent physicians and teachers," so little.

It may have been a serious defect or misfortune in Herbert Spencer's famous *Essay*, that he dwelt too much on this principle of making a boy's artificial education interesting to him. But it must be remembered that he was arguing against an excess of enforced drudgery in his time in rather useless subjects, when the natural capacity of the boy, or his health, was manifestly unequal to them, or unequal to going far in them. He was writing before the year 1860; and never dreamed of the extent and extreme to which his idea on this point would be carried by the excesses of the elective system in America. He does not appear to have been misunderstood in England, and if one remembers his *Essay* as a whole, there seems to be no reason why he should be misunderstood.

If we glance at the surroundings of European education, we find it much simpler and more free from distractions. Outside interests are not allowed. For example, secret societies and school and college journalism, as developed to their extraordinary height in this country, would not be tolerated for a moment

in Europe. There is a very modified form of school journalism in England; but little or none of it on the continent. The playing of outdoor games is not only encouraged in England, but is compulsory. In the severe French system there has been too little of it, almost none, and they are trying to introduce it.

But what is the English system of outdoor games? Totally different from ours, particularly in the schools that lead to the higher education. In England the elaborate part of the system is the part by which the boys of a school as well as of a university, *all of them*, play outdoor games all the year round among themselves, without excitement from the outer world or undue notice from it; without gate money, or the politics, diplomacy, cunning, occasional crookedness, newspaper notoriety and long railroad journeys of our interscholastic, intercollegiate, professionally-coached, reporter-watched system.

Under our system, in a school of hundreds or a college of five or six thousand, nine men and a few substitutes on the baseball team, eleven men and a few substitutes on the football team, a few tennis experts and the expert runners and jumpers do the athletics and exercise for all the rest. The rest shout and applaud at the games; but have no games of their own; and they are usually the ones who most sadly need games, exercise and out-of-door contention. They should be encouraged, even forced into

such games. But, as a matter of fact, the surroundings encourage only the experts who from natural inclination would probably play enough of their own accord and need the play least of all.

Attempts have been made in certain institutions, more usually schools, to remedy this evil; and a really hopeful beginning is believed to have been made. In the report for 1914 of St. Paul's School in New Hampshire, it appears that out of the 360 boys, 250 counting substitutes play on 20 organized football teams; about 50 play tennis and golf; 80 take part in the autumn rowing. About 275 take part in the 36 teams of winter hockey; others were learning to skate. In the spring 115 older boys and 40 young boys were rowing; 54 played baseball; 233 used canoes. The sum of all the statistics was that about 250 were regularly engaged in organized sport, about 80 had suitable wholesome exercise outside of organized sport, and only a rather small number, varying from 10 to 20, proved incorrigible and could not be got into satisfactory out-door exercise.

This is an excellent showing of the beginning of compelling exercise for everybody in American education. Other schools are following the same plan. Although its necessity and value are obvious, it has been like pulling teeth, and has required long years of time to get it started. There is now no reason why it should not be carried out in the colleges. Reed College, in Oregon, has abolished intercol-

legiate athletics, substituted for them intramural athletics; and made exercise compulsory for everybody, including the professors. The others make no attempt to abolish the intercollegiate evil; but some of them make considerable and often partially successful efforts to encourage intramural sports. But as yet the change has not gone far. The craze for records and record-breaking, blind worship of professionals, contempt for quiet enjoyment of moderate skill and physical invigoration away from the public gaze, make the task of reform in this department seem at times almost hopeless.

CHAPTER VII

THE SITUATION IN THE COLLEGES

THE subject of the colleges usually implies a lengthy discussion of the elective system. But I shall not indulge in that temptation. The conspicuous features of it are pretty well known and have been knocked about often enough. All that is necessary for the purpose of this book is to call attention to certain phases of it which are distinctively American and reveal the fundamental nature of our educational system.

In this respect there are two or three striking facts which seem to control the situation. They are well known to professional educators; but are seldom brought to the attention of the public. One of these is that there is no elective system in Europe and no discussion or controversy about it. The principal reason for this brings out the second striking fact, that the freshman and sophomore years at our colleges are a mere continuation of preparatory school work, not only in subject matter, but in methods. Not until junior year is our student at all fit for real University work. Our college students could not as

a rule enter a European University until the close of their sophomore year.

Our boy is taken from school two years too soon, to continue school methods for two years more at a college or university, or mixture of the two. Hence our thousands of pages of print denouncing the absurdity of supposing that a boy in those two years is competent to choose university studies best suited for him. Other thousands of pages assert that he is perfectly competent. Other thousands maintain that he is partially competent, if you restrict his choice to certain groups of studies. Others recommend that our colleges be abolished altogether. If, as in Europe our boy remained in school as long as he was fit only for school studies and methods, and then went to a university, our elective system as a name and a controversy would disappear. We should have no more discussion over it than they have in Europe.

We gradually drifted into it from the circumstances of our early struggles in a new country. Such circumstances will force an educational system on a nation, even against the wishes of its ablest educators, who become mere flies on the wheel. The beginning of our elective system can be traced very clearly before the Revolution in Philadelphia College, now the University of Pennsylvania, and in Kings College, now Columbia University. It was attempted as a system in Trinity College in 1823,

started in a modified form at Harvard in 1825 and at the University of Virginia in 1830. But it did not break out into the extremes which have been so much discussed in our time until after 1870, under the leadership of Harvard.*

A certain amount of election in liberal studies was often a necessity, even under what we call a prescribed curriculum, because if a college increased the number of its studies or professors beyond a certain point, there would be more studies than the students could take in the time allotted and more professors than work for them to do. The students would be forced to choosing. A hard and fast prescribed curriculum in the literal sense is, therefore, possible only when the number of the studies and professors are kept within a certain limit. Some institutions naturally went beyond the limit, that is, drifted from the school type towards the University type, and necessarily had electives.

These facts show the critical point and foundation of the whole thing. In Europe they have no discussion of an elective system, because a school remains a school and a university remains a university. In the school there is no freedom of choice. In the University the widest freedom, limited, however, by the examinations which have to be passed to secure a degree. Americans, accustomed to our

* Foster, "Administration of the College Curriculum," pp. 23, 110; Eliot, "Educational Reform," pp. 127, 137, 144.

heated controversies on the subject, have often on going to Europe been surprised to find the wide freedom of choice allowed in Universities and have thought it was a recommendation for an extreme elective system with us. They had not been told that our college or university was a half a school.

We had no university at all before the year 1876, when the Johns Hopkins at Baltimore started as one. Since then we have hatched them out in flocks, all of them partly schools or a mixture of school, university and college. The word college has a peculiar meaning and history in America.

It is easy to ridicule our system when comparing it with the old and differently originating system of Europe. But as already intimated all the history of education shows that any system may produce good results; and it is not always easy to determine what is the best. A system must be considered in all its surroundings and the circumstances of its origin and growth.

Ours originated in our early pioneering days, in Colonial times. The colonists soon saw the necessity of having something beyond school courses for educating ministers of religion, lawyers, doctors and legislators. They had not the means of equipping a University in any proper sense; so they established institutions which they called colleges; Harvard, Yale, Kings, Princeton, Philadelphia and William and Mary in Virginia. Since the Revolution they

have multiplied until there are now about 700 of them.* They are nearly all in one sense merely higher schools, like the first ones. They are all, even the latest, animated by the same motive and principle which established the first ones, namely, to offset the narrow materialism of a new country and the tendency of democracy to the exaltation of the commonplace.

Looked at from this point of view the splendid work they have done for a 100,000,000 people is far outside the pale of ridicule. How could we have got on without them? We must continue to use them for many years to come.

The spontaneous manner in which, for over a hundred years, hundreds of distinctively American colleges have sprung into existence all over the Union, justifies the statement that they are the expression of the democratic spirit, the true American spirit. They have not, it will be remembered, been created by either state or national government. In Germany the great universities and the *gymnasia* are government creations; they represent imperialism and paternalism; and a certain mechanical machine-like product that is not in entire accord with American

* The number of colleges as given in General Education Board, 1915, p. 109, is about 700, which includes everything calling itself a college. Many are hardly more than secondary schools or give only one or two years of college work. This effort to bring in higher work shows again the method of growth and animus of our system.

traditions. But the American Colleges, except a few state universities, have all been the work of groups of private individuals, often of religious bodies, and of hundreds of millions of dollars given by individuals. It has not been the rich alone who gave. In the history of almost every college there have been innumerable small sums contributed. In the case of one college I happened to know about seamstresses and working men contributed to its foundation; some of them giving a few days of their labor.

— The great central fact that our circumstances compelled us to mix school and university studies together in one institution, is the key to nearly all our controversies and problems. We have been compelled to defend as a permanent system what was nothing but a makeshift. We have been compelled to pretend that what we call the elective system was a discovery, when as a matter of fact it is nothing but a phrase to conceal the poverty of our early days which prevented us having universities. Always and everywhere studies have been elective, if the boy was old enough, advanced enough and had time enough. You might as well speak of wearing clothes as a discovery. It would be better to defend our system for what it really is, a makeshift.

On that basis we have excellent reasons for defending it. We had to force or coax our people into higher education as a national necessity. When it

is said that our system produces an immense amount of "flabby inefficiency, loose vagueness and inaccuracy," as Professor Münsterberg puts it, we can reply yes, and why not? Our doctrine has always been that weaklings and boys only half capable or half prepared for college, should, nevertheless, go there, drag through somehow and get what benefit they can, if only a social one. This is based on the assumption that any kind of experience at college or "passing through" will do the boy good; that as many citizens as possible should be brought in contact with this panacea for the sake of the benefit to the community; and in any event their mere numbers will build up the particular institutions concerned, and all higher education. Hence the conditioned students, special students, free electives and all sorts of arrangements for dragging them through, which we must make our people believe are democratic, liberal, and American. We have been compelled to this system because in our peculiar circumstances of a new country it was for the best. At the same time, we should remember the fact, that older countries lean the other way and weed out and reject often remorselessly, the half prepared and the naturally incapable. We too shall have to come more to that in the end.

Meantime having broken loose from the old settled methods of Europe we have floundered about in experiments and novelties. In some colleges the

B.A. Degree, which once stood for nothing but Latin, Greek, mathematics and philosophy, can be obtained without either Latin or Greek. In others, the amount of classics required varies indefinitely from next to nothing up to moderation. All the other studies for that degree vary infinitely; and there is now no set of studies which are typical of it. President Foster tabulated all the studies of most of the colleges in the country to see if he could find one set typical of the degree, but could not find it.

In addition to this, it has long been the custom to grant degrees called Bachelor of Science, Bachelor of Philosophy and Bachelor of Letters, which are semi-legitimate or modified forms of the old B.A. degree intended to help the weak who want a college education or the name of it, keep up numbers and give as many citizens as possible some sort of college experience.

Then we have the attacks on the classics and loud boasts that to-morrow they would be nothing but a pathetic relic of the past; and yet Latin and Greek are still here. Professors of them are still receiving salaries, students choose to study them even under the elective system and sometimes in spite of it.

Greek has, of course, been hit harder than Latin. In some colleges when Greek professorships become vacant, no one is appointed to the chair; and the smaller amount of work required is done by an as-

sistant or instructor. In many other instances the Greek professors remain at their tasks. It seems difficult to obtain statistics, but there does not seem to be anything like a complete abandonment. The statistics of the number of students attending classical courses vary up and down; and members of college trustee boards watch those statistics from year to year, to see if the last year has come; but it has not come.

Advocates of the classics as the strongest and best training for the human mind still print their essays and even books; and they point to living instances of the merits of their doctrines, and living instances of the evil of disregarding them. In President Foster's recent book he summarizes the investigations in the after life of undergraduates which show that under the elective system the men most successful in later life had elected more of the classics than the unsuccessful. But this, say the attackers, merely shows that those already strong and able chose the harder studies, or that boys destined by heredity to make the more successful men came in larger numbers from homes devoted to the traditional education.

Here and there a college stands out strongly for the classics, especially Greek. Commonly, however, two years' study with choice as to whether it shall be in Latin or Greek is the requirement. Greek has been made optional in this way in all the New England col-

leges; and other colleges that still hold to the classics are coming into the same arrangement.

The enemies of the extreme elective system have largely triumphed. One of the worst blows it received was the movement of a few years ago to reduce the college course from four years to three. The attackers were quick to see the point. What could be a stronger condemnation of the elective system, they said, than this desire of its own advocates to get rid of it as shown by their attempts to shorten the college course to three years, or accomplish the same result by allowing college students in their last year to elect strictly professional studies. The elective system, in short, has produced so much weakness and silliness in what had before been called liberal education that the public which blindly accepted it because of its vague promise of freedom is now in despair at its emptiness, waste of time and failure to accomplish mental training and advancement. People are demanding that its supposed merits be cut down and made as brief as possible, so as to save the precious time that is being wasted on it; and in this they are joined by college professors and presidents.

The opponents of the elective system take no little satisfaction in pointing out that the distinguished gentleman who has been the most earnest promoter of the free elective, has become equally earnest in recommending the shortening of the course to three

years, and introducing into it professional or technical studies.

In 1910 Harvard took some backward steps and very much restricted the field of choice in electives. This, with the general acceptance of the group system seems to indicate a final sorting out of the mass and a settling on not one prescribed course like the old one, but a limited field or restricted groups of studies to be marked liberal and lead to the B. A. degree. Many, however, assert that the idleness, weakness and mental flabbiness of the elective system still continue even in the group form of it. Nothing else, they say, can be expected, because our schools are weak and our colleges and universities are still half schools.

CHAPTER VIII

THE PRACTICAL MAN'S CONTEMPT FOR COLLEGES

WE have all met with instances of this contempt. It has its uses for us; and fortunately there is a fine instance of it in print which seems to be representative of a great many others.

Some few years ago Mr. R. T. Crane, a manufacturer in Chicago, wrote several pamphlets and a book attacking colleges and all higher education as useless and incompetent, mere luxurious homes of idleness and vice producing graduates who usually failed in business, and at best, could hardly earn a decent livelihood as clerks. He even assailed the schools of technology, applied science and engineering as equally useless. He would abolish them all and have education go no farther than the common schools.

His ideas attracted attention because of his ability and success in his own business and because he expressed in a pungent, brief way the opinions of a class. Starting in life as a mechanic with very little schooling he had raised himself by his own native force to the position of a millionaire; and, as often

happens with self-made men, his way of putting things was original and interesting. Unconsciously, he afforded in himself a most striking proof of the value of higher education; for his total inability to marshal or judge of evidence, or grasp a broad complicated situation, was obvious and deplorable. He had made, what to him, seemed the new and remarkable discovery that a number of persons had risen to the office of President of the United States without a college education. That alone, he said, was proof enough of his contention, and the rest of his arguments were unnecessary. He employed a detective to shadow the young men of a great university; and finding a certain number of them in haunts of vice almost every night, he considered that decisive, without considering what proportion that number bore to the total 5000 under-graduates of the institution.

He does not seem to have known, however, of one of the best illustrations of his point, namely, that when the Continental Congress at the outbreak of the Revolution, were looking for a man to represent them in diplomacy in France, the college graduates were so ignorant of French and all European languages except English, that they were hardly competent, and the man they selected and who filled and exalted the position beyond their fondest hopes, was Franklin, who had no college education, and had spent only two years at school when a little boy. His

first published writings ridiculed Harvard College, and he never afterwards went near a college, or university, except to receive from them those honorary degrees of Doctor of Laws, given to him for distinguished public services and learning, to which he had attained without the slightest assistance from college education.

Facts like these and criticisms like Mr. Crane's show what education is and they help to disclose the complications and difficulties of the teachers' art. Up to a certain point there was a basis for Mr. Crane's criticisms and up to that point he was in accord with some of the most learned and competent educators of the country. He saw the flabby, loose, inaccurate side just as Professor Münsterberg saw it; but he could not see anything more.

His argument seems to have been based on the assumption that there is nothing in life but making a living; that there is nothing else for a man to do all his life, and it is so difficult, and so seldom accomplished, that nothing else should be attempted. But the world has always very decidedly differed from him in that respect, and always will. Making a good living is important; but making a good life is also important. Thousands of those who crowd our colleges have a living secured, or believe that they have, and want a career and distinction outside of it. Thousands of other earnest and ambitious young men, with no living secured, believe that they

can attain at the same time both a living and a wider career of usefulness or distinction; and you cannot drive that idea out of their heads. Even some of Mr. Crane's own business world complain of employees sent to them from the technical schools, that they are too narrow; too much set on mere technical skill, and should have been given the broader outlook of a more liberal education.

Mr. Crane did not understand life. He had not surveyed it as a whole. He did not realize, as Dean West puts it, that "the true utility is the long utility which serves to make a whole life useful." We call life short, and so it is in many ways. But when a boy starts on it, he has a long way before him of many shifts and changes, developments and revelations; things he may want to be; things that if he can, he ought to do; and ever since men began to think they have largely agreed that the best education prepares for the whole of life and not merely for the start.

That book, much read a few years ago, "Letters of a Self-Made Merchant to His Son," has some of the Crane arguments in a more moderate form. Barnum, the famous showman, once wrote some charmingly humorous comments. Mr. C. R. Huntington of Western Railroad fame, condemned colleges because they produced dreamers; and everybody that knew about colleges was much amused. As Mr. R. E. Jones said in his Forum Article, the colleges pro-

duce "fans" and shouters at baseball and football games, and such head lines in the newspapers as "College Ruffianism," "Academic Sluggers." They produce charming social fellows, excitable, talkative; and a certain number of "digs" and "grinds," that neglect fresh air and exercise. But none of these is a dreamer. Where are the dreamers? It might be better perhaps, if there were a few dreamers, that would give a tone of deliberation to the rest. Mr. Huntington imagined from what he knew of literature and poetry that colleges must be devoted to these things and would produce dreamers who were unfit for business or clerkships, or rapid money making.

The college fans and shouters and social successes that skim through the "soft snap" courses, afterwards go into business offices and, often at first, are failures in accuracy, punctuality, strenuousness and reliability. They have no idea of obedience and are wonders at excuses. But they are not dreamers. They are more on the rattle-brain, harum-scarum order, and they give the Huntingtons and the Cranes the material on which they base their criticisms. One youth of that sort is more conspicuous and makes college methods more notorious than a hundred of the other kind. The really studious college students are not dawdlers or grossly inaccurate when they enter business life; but they are not of the conspicuous, talk-arousing sort. They are, however, the more

numerous class produced by colleges; and the light ones, in spite of all that has been said, are less numerous.

We must remember that in the last fifty years there has been a greatly increased attendance at colleges of young men who do not intend to go into the professions. One reason for this is that the social distinction of a college education is more sought than ever it was. It has been discovered that family prominence and position cannot be kept up even with money, unless liberal education, or the appearance of liberal education, is added. The social position which well educated professional families were observed to attain and keep with apparently so little difficulty, and often with very little money, is now sought by the thousands of people who have made money so easily under modern conditions. These people have wanted the technical, utility and industrial college courses that would fit young men for the new phases of modern business and at the same time give the social distinction of the old traditional college studies. They have formed a large part of the public opinion which has supported the extremes of the elective system. Not having the traditions in education of the old professional families, the extreme elective system seemed to them a quick, easy and natural method of accomplishing their object. They supported it faithfully for its supposed easy practicalness; and when criticism seemed to show in

it trifling or weak results, they have been among those who favored cutting down the time spent on it from four to three years.

This rush for an easily gained higher education is believed to have brought all liberal education into contempt. Princeton University has, at great expense, established a preceptorial system, by which every five or six students are in special charge of an assistant professor to direct their general reading and supplement their courses of study. In the pamphlet recommending the system, one of the principal objects, it is said, is to give to young men some respect and appreciation for liberal education beyond their ill-concealed contempt for it as a mere mechanical pass process, socially necessary and to be gotten through with quickly and cast aside.

The statements of the Cranes and others that college graduates, as a class, are useless and failures in business, is not borne out by the facts. Thousands of them are nowadays entering all sorts of occupations. Many of us are personally familiar with the lives of scores and hundreds of them in the University Clubs of the large cities. They seem to prosper in business occupations fully as well as those trained in nothing but business, and often better. They have a broader grasp. Young men trained in nothing but business are not invariably the wonderful successes that Mr. Crane's criticisms imply. Thousands of them are failures or never pass beyond

earning a bare living.

Mr. Morris L. Cooke, the industrial efficiency expert, whom the Carnegie Foundation employed to investigate eight supposed typical colleges from the "Business man's" point of view, reported, among other things, that college graduates were now very numerous in the commercial and business world, and their services regarded as very valuable when they were once broken in to their new life. It required about two years, he said, to break one of them in; and their employers were always anxious that some other employer should pay the wages or salary during those two years. On the other hand, we find President Harper asserting that men of business are quite "willing to give such men ample opportunity to learn the technique of the business, strongly confident that in the end these men will excel." * I have been personally informed by prominent men engaged in transportation and technical industries that the demand for college bred men in those occupations was increasing, and that there were an increasing number of positions that could be secured only by men of that training.

If it takes only two years to break in the boy who has had four years of shouting at football games, "soft snap courses," and manufacturing medical excuses for cutting recitations and lectures, the result is much better than might have been expected. But

* "The Trend in Modern Education," p. 270.

we have an interesting witness to call, Mr. Ivy L. Lee, Executive Assistant of the Pennsylvania Railroad, who not long ago delivered an address, "How Can the College and Railroads Co-operate?" *

The college man is valuable in business, he says, not so much for what he has learned, as for the habits of mind and work that he has acquired; in short, his broader outlook and ability to grasp the larger situation. The demand of industry, Mr. Lee says, is for men who understand both theory and practice, not practice alone; and then he goes on to condemn the technical schools because they are so technical and furnish no liberal education. Although technical, they do not produce practical experience and judgment. They do produce conceit and over-confidence; and a certain narrowness of mind brought on by a too exclusive attention to mathematics and theoretical science and too much neglect of broader subjects, political economy, general literature and history.

So the technical education from which wonders were expected, which has grown to such importance in recent years, which was considered such a liberal training that many of its studies were introduced into courses that led to the B. A. degree, is condemned for its narrowness and illiberal character by the practical men themselves. The shop work in

* Summarized and in part printed in the *Literary Digest*, August, 1913, p. 244.

technical colleges expected to be so practical is condemned as mere imitation or play, and far inferior to spending part of the summer in real shops where actual work is done and contact with actual workmen can be had. To off-set such criticisms as these a counter tendency has been increasing of recent years of trying to inject into the courses of technical schools more and more liberalizing studies, literature and history. This has been done even in agricultural courses, until it is a question whether the technical colleges will not before long find themselves with technical studies reduced to a secondary position, and teaching Latin, Greek, philosophy and history, as the best preparation for engineering. Education affords some fine instances of reasoning or developing in circles.

CHAPTER IX

MORE CRITICISMS AND THEIR EFFECT

M R. CHARLES F. BIRDSEYE, a graduate of Amherst and a prominent lawyer in New York, has written two books, "Individual Training in Our Colleges" and "The Reorganization of Our Colleges." He is exhaustive in research and detail of facts; inclined to carry ideas to extremes; but complete and able in statement. I doubt whether any educational system, or a system of any sort, ever had brought against it such a scathing and violent indictment. After reading it one wonders why mob violence has not levelled every college and university to the ground. A summary is difficult; but perhaps it may do to say, almost in his own words in one passage, that the last two generations have seen a most prodigious growth in equipment, funds, plant, endowment, laboratories and buildings running up into hundreds of millions of dollars and in the same time a steady deterioration in the quality of the output. If it had been an ordinary business competition, the institutions would long ago have gone bankrupt, and disappeared.

He might, indeed, have added that they are tending somewhat in that direction; for within recent years large annual deficits have appeared in many of the best of our old endowed colleges and universities. Is it possible that only the modern state universities, supported by taxation, will survive? These shortages are often made up by sacrificing their property and invested funds not assigned to any special trust, and to that extent crippling their future usefulness. Such deficits appearing in such steady old institutions forty or fifty years ago would have been regarded as little short of crime, and as proof of gross extravagance and mismanagement; but now they pass with scarcely a hostile comment.

Mr. Birdseye's statement of the prodigious growth in funds, equipment and expense with diminishing returns, seems to be confirmed by the very extraordinary differences in cost in the management of foreign universities compared with our own which have been brought to light by Dr. H. S. Prichett of the Carnegie Foundation. He compared the six older American Universities with six in Europe, namely, Berlin, Leipsic, Paris, Vienna, Bonn and Edinburgh. The number of professors in the six American turned out to be about the same as in the six European institutions. The six in America handled 18,500 students a year at an annual cost of \$5,100,000, or, at the rate of \$277 a student per year. The six in Europe handled 43,000 students at an

annual cost of only \$3,800,000, or at the rate of \$89.00 a student per year. Harvard, he found, spent more annually in dealing with 5,000 students than the University of Berlin and Paris together spent in dealing with 26,500 students. Princeton spent as much per year on 1,400 as the University of Vienna spent on 6,000.*

In our attempt, says Mr. Birdseye, to handle enormous numbers, individual training and mental discipline have largely disappeared, and mere information and so-called culture courses, excessively increased. In one of his most interesting chapters he comments on what he calls the only instances left in our colleges of individual training and discipline, and those are the football and rowing coaches, who use no mechanical or wholesale method but train by the intensest form of individualism and by a discipline that is absolute and unrelenting.

For a large part of the proof of what he says he can cite the statements of presidents and professors, and reports like those of the Carnegie Foundation for Advancement of Teaching or the report of the Briggs Committee of Investigation at Harvard of 1904, which is a source of much information and revelation.**

Against all this overwhelming mass of criticism by

* *Atlantic Monthly*, Vol. 96, pp. 290-293.

** Printed as an appendix to Birdseye's "Individual Training in Our Colleges," p. 397.

practical men, self-made men, expert professors, presidents and committees of investigation, must be placed the fact that during the period of this criticism's greatest accumulation, and in spite of it, the numbers of young men seeking college education have steadily and enormously increased. Statistics of this sort are given in the Tribune Almanac and in the World Almanac, but somewhat mingling purely college education with that of the technical and engineering schools. So in order to have the exact statistics of the increase in colleges of the liberal arts alone, I asked the Commissioner of Education at Washington to give it to me from the year 1880, and it is as follows:

Number of undergraduate students, Male	1880	1913
	17,580	120,380
Number of undergraduate students, Female	14,172	69,767

In those 33 years since 1880 the population of the country has not quite doubled; but the number of men graduates has increased nearly seven-fold. Much of this has been due to the growth of the State Colleges in the West, which in the last 20 years have increased twice as fast as the others.

The amount of money poured out upon our higher education in gifts and bequests in recent years is almost beyond calculation. For one year, 1899, it

was estimated at over \$70,000,000. American higher education may, as the experts assert, be largely wrong; but the masses and the capitalists seem to be marking it with very positive approval. It is said, however, that this increase has been largely caused by the laxness of the training and the ease with which degrees can be obtained. The education is largely information furnishing. In Europe where education is more of a training and discipline, the number seeking higher education is very much fewer in proportion to population.

On the other hand, the great increase in numbers tends all the time to relax the severity of the training and encourage mere information furnishing. Thirty or forty years ago, when one or two leading colleges had attained the number of a thousand undergraduates, people were amazed, and would say, why it is equal to a full regiment of soldiers. But now the largest college in the country, Columbia, has just short of 10,000; the next largest, the University of California, has 7,000. Quite a number have from four to six thousand; and those of one thousand are now classed among the smaller colleges. These numbers may greatly increase in the future. They have been exceeded in the past. In the thirteenth century the University of Bologna had 10,000 and the University of Paris 20,000.* I dwell upon the question of numbers because it seems to have been

* Kemp, "History of Education," pp. 140, 141.

such an important factor in causing many of the evils complained of. These immense numbers, not only in colleges, but in public schools, have come upon us so suddenly that we have not learned to handle them or have attempted to handle them by new or mechanical methods, which surprise us by not producing the same results as the old individual training and mental discipline.

If we are staggering under the effort to handle such immense numbers of students out of a population of 100,000,000; what shall we do when the population increases to 200,000,000. The number of our colleges was 22 before the year 1800. Now it is reported as 700; and of these not quite 400 are institutions of the liberal arts. People are constantly saying that even the smaller number is absurdly large; that the weak ones should be killed off and their property and students go to the stronger ones. But localities insist on having their own colleges and some of the best we now have were once weak. We have gone to what seem absurd extremes, it is true, in creating colleges. The State of Ohio, for example, with a population of hardly 5,000,000 has over 40 colleges and universities, almost twice as many as the German Empire with a population of 64,000,000. But while many weak colleges are thus created, the process on the whole has been a natural one to enable the increasing demand for higher education to be handled. There is more ambition among all

classes in America for higher education than in Europe. Our colleges, even large and eminent ones like Harvard and Yale, draw the majority of their students from a radius of only about one hundred miles. In the vastness of our territory, therefore, large numbers of colleges have been a necessity.

An influence which may in the future check the increase of small colleges, is the success of State Universities. Each one of them, having the tax fund behind it, is apt to grow large and absorb all the higher education of its state. In England they solved the problem of handling large numbers many centuries ago, as at Oxford and Cambridge, by dividing the University into a group of a dozen or more small colleges, so as to retain the benefit of individual training in small numbers at each college, combined with the broadening benefit of the large numbers and general lectures of the whole University. They have, usually, considered 3,000 a large number for a university. But we now have ten universities with over 5,000 and two of these are nearly up to 10,000.

Our college presidents used to be like the heads of colleges in England, merely superior teachers and scholars, little known outside the pedagogic world. But now our presidents have developed into executive administrators of a high order, like generals of armies and captains of industries. They may start as professors or scholars, but by speech making on

public occasions, essays on public problems, and activity in raising funds, they pass into a different type. Some of them cannot be kept from politics and large public careers, and even the National Presidency seems to be not beyond their reach!

The chaotic condition of our education, both school and college, the immense numbers demanding it and the immense sums of money lavished on it, are in the opinion of some people a strong proof of its healthy and vigorous condition. It is a spontaneous natural product, they say, of popular thought. It seems chaotic because it has become varied in its phases, changing with the wants, opinions and ambitions of every locality. It is full of experiments, theories and subtle divisions of theories, because it is struggling towards high ideals.

CHAPTER X

INTERCOLLEGIATE ATHLETICS

IT is the boast of some Americans that our whole educational system has been created by popular demand and is carried on from year to year by the popular will and wishes expressed through voluntary associations, conventions, individual suggestions and the state legislatures ; that the constant changes that result from this are a wholesome growth, give volume and breadth of view, and are far superior to the static condition of European education, which was created and is changed only by experts acting independently of popular favor.*

But there are not a few who complain of this condition, and regard it as a serious misfortune that our education in its details should be shoved here and there by the fickle wishes of the mass of the population. No good can come, they say, from teachers, professors and presidents being in the position of merely trying to please the masses, so as to secure increasing numbers for their institutions or protect

* "A Generation of Progress in Our Public Schools," Public Association of Phila. Study No. 42, p. 12.

their salaries. European education, controlled by a trained and experienced professional class, is entirely popular, that is, it satisfies the people of those countries; they are perfectly content with it, and have perfect confidence in it; and with good reason, for it produces better results than ours and puts young men into professions and business two years ahead of ours. It has been particularly strong in industrial training, and we have always been obliged to imitate and draw from it. Its "scope is so broad, its forms so multifarious, its methods so scientific, its hold upon public opinion so complete, and the impulse which it is giving to industrial leadership so powerful, as to entitle it to the most thoughtful and respectful study."*

It has even been said that a potent influence in what American education shall be has been the opinions and wishes of the boys themselves, without regard even to humble suggestions from their parents. Such a situation has never been known in Europe, where not only the juvenile wishes in the matter are more suppressed; but education has been more in the hands of a comparatively few leaders of professional attainments who slowly adapt the educational system of the country to the changing times and scientific discoveries, as they think suitable, and not altogether as the mob, the unreflecting and the students think is suitable.

* *Id.*, pp. 42, 53.

A remarkable illustration of our method in America is seen in the way in which the public and the newspapers have forced upon the colleges and schools the intercollegiate spectacular athletic sports, against the helpless protests of our best teachers, professors and presidents. No man used stronger language in denouncing these semi-professional gate-money sports, their not altogether infrequent dishonesty, their distractions, false excitements and injury to mental training, than Mr. Charles W. Eliot, when President of Harvard. Yet he was powerless to alter the system in the slightest degree, even in the University over which he presided. His declarations that it was working "incalculable harm to schools, colleges and universities," that the evil "had begun in the colleges and worked down into the schools," were so extraordinarily impotent in results that thoughtful men realized for the first time how completely our educational institutions were in the hands of the mob instead of in the hands of the men commissioned under the law and charters to rule them. It has been people not officially connected with the colleges who have exploited them in this respect, worked up the excitement and publicity of the sports, and diverted the youthful enthusiasm of the students to public amusement and the dividends of journalism.

It has been most cleverly done. In one year the gate-money receipts at Harvard University alone

were over \$63,000, all of it needed and used for the expenses of the University's Athletic Teams which give play and exercise not to all the 5,000 students, but to the insignificant fraction of them on the teams. At Yale the athletic revenues were one year over a hundred thousand dollars. When we add to these sums the similar sums at other colleges and universities, you have an enormous annual amount which the public have astutely persuaded college boys to draw in and expend for public amusement.*

As I am not here to withhold anything supposed to be a fact, I shall say that the reply of the public and the newspapers is that this system has enormously increased the popularity of the colleges among the masses; that instead of being regarded as hermit aristocracies, the college names and games are now known and read with eagerness by all classes of the people, and even by the drunkards in the saloons where bulletin boards of college games are not infrequently displayed; that the colleges have thankfully accepted this free advertising as assisting in the mad race for mere numbers; and that there is scarcely a trustee board, a president or a faculty that dare stand out against that system and lose in numbers.

In order not to be misunderstood, I must say that I do not believe that the colleges have been benefited or made popular in any such way. The great

* Educational Review, Vol. 31, p. 50.

increase in undergraduates at all colleges in recent years has been due to a serious seeking by serious minded people of the benefits of higher education; and this is the opinion of experienced college presidents. Our whole educational system has been so shaping itself for a number of years that all our school education, public and private, leads to college as its ultimate goal. In other words, our system has long since become a unit. Colleges and schools are united in one National System, which is a necessity of our existence in spite of its defects. The colleges have never been class institutions that have to be popularized by bull fights and gladiatorial spectacles. They are democratic, the reliance and best hope of democracy, to save it from Mexican and South American anarchy. They are as much a part of our public and national education as the public schools themselves.

At the same time they and the public schools are too much controlled by popular whims and fancies. We protest against the control of railroads and large corporations by outside persons for their own private profit without regard to the interests of the stockholders or the public. It is a question how long we shall permit a similar method to control the colleges. Independently of extreme athleticism, our education has been too much in the hands of the mob in other ways, so much so that a prominent college president has gone so far as to say that it was part

of the duty of his office to keep his ear to the ground and conform to popular fancies. Others who might not be willing to say so, have practiced opportunism in the crudest forms; nor have trustee boards and professors always been different or better. Whether our education can ever be taken out of the excessive part of this popular control is one of the difficult problems of the future.

The case of the public schools is, in some respects, a little different. It must be confessed that a great deal of the improvement in schools in the last thirty years, better sanitary arrangements, manual training, compulsory education, medical inspection, repeal of confused legislation, simpler and more effective administration and taking the schools out of corrupt politics and jobbery, has been accomplished by voluntary associations, civic clubs, and such like reform organizations, composed of the best citizens, men and women of means and higher education. In a sense, this is popular control; but not control by the masses and the mob. In fact, the efforts of these excellent people and societies have been directed towards saving the schools from the influence of mere general popular ideas and machine politics; bringing them more under control of professional educators and steady administration.

CHAPTER XI

MISCELLANEOUS STUDIES AND BOY RESEARCH

A STRIKING characteristic of our education of recent years has been the attempt to make it include all sorts of things that have never been included in it before. Any good or useful experience a man encounters, anything he supposes to have done him good, or broadened his views, he immediately, and with the best of intentions, wants introduced in school or college; and if he is influential and can organize others of like opinions, he oftentimes succeeds in having it done. A friend of mine, I remember, once advocated having the game of poker taught in schools, because it was such an efficient teacher of shrewdness and bluff. Why not also the game of chess, which requires brains more than bluff?

The care of animals and association with them is a powerful means of education. Our race in the past has been largely educated in that way; our sympathetic, humane qualities, and even some of our mental qualities were slowly developed by close dependence on the horse, the cow and the dog. Races that have attempted the struggle against nature,

without such animals, have been inferior, and the school teachers now say they find that modern city and suburban life has none of the old fashioned chores and animals for the children to work with and is, therefore, lacking in a very important essential. "Boys," says the report of the Baker Committee, "who through the home have gained some kind of manual skill, such as may be used by working in shops or on the farm, have a great advantage in a substantial character and a wise attitude towards life."* In some schools teachers try to invent things like the old fashioned work for the children to do at home, and have a system of marks for excellence, with blanks to be filled out by the parents.

Going away from home is found to be an important stimulant to education. Minds naturally bright and keen often remain in a condition of actual stupidity, because they have always lived in one place. On the other hand, young minds constantly moved from place to place are injured and dissipated, because they have lost the training that usually can be given only by stability. We may hear any day of proposals to use part of the school fund to enable public school children to travel. Food for their lunches has to be bought for them by philanthropic people; and why should not money be supplied for travel too?

You can spread your system out very wide with

* U. S. Bureau of Education Bulletin, 1913, No. 38, p. 12.

suggestions of this sort; as wide, in fact, as the whole past experience of the race; and every one of the suggestions will have in itself an undoubted value up to a certain point; and if life lasted forever, or the year was twenty-four months long, or time, as the lawyers say, was not of the essence of the contract, we might have endless pleasure and excitement in carrying out all these excellent ideas.

Our extreme in this respect on its best side, is an attempt to make the college and the university correspond to every phase of life and touch the almost infinite variedness of modern life at every one of its points. It seems like a broad and noble spirit, and no doubt is that in many ways. We are attempting to make the college and the university co-extensive, as Mr. Flexner puts it, with the whole human intelligence. Not only the classics and modern science, but manufacturing industries, ordinary trades, hygiene, pure food, clean streets, municipal government, forestry, horticulture and dairy farming, are all mixed in one university containing fledgling undergraduates, some of whom are actually taking research courses as an interesting experience, together with graduates who are in original research but so deficient in elementary training that some of them are taking the undergraduate courses of freshmen.

This extreme is most noticeable, perhaps, in the western states. The University of Wisconsin is, I

suppose, the typical and extreme instance. It seems to have connected itself with every possible interest and industry of the whole State of Wisconsin, has raised the State, for example, to be almost the first in dairy products; and has centralized in itself the control, not only of education, but of the State's industries to such a degree, that the question almost arises whether it has not become the State and whether what we call a reform movement may not soon be in order to break the control.*

The development came about largely through the wonderful growth of the agricultural department and the example of its success in reaching and instructing the tillers of the soil in almost every county. The story of this extraordinary growth of farm teaching in twenty-five years under the enlightened enthusiasm of Dean Henry, the discovery by his chemist, Professor Babcock, of the butter fat test for milk, now used all over the world, and the remarkable experiments in animal nutrition, form one of the most inspiring and interesting chapters in the

* *Life* had this to say of it:

Education is the rage
In Wisconsin,
Every one is wise and sage
In Wisconsin;
Every newsboy that you see
Has a 'varsity degree,
Every cook's a Ph.D.
In Wisconsin.

history of American education.

This high ideal of having the universities and the colleges regarded as leaders in the work of solving the problems in every realm of life, is not only spreading as an idea, but is being carried out in practice. A state-wide campus is the motto. The university, it is said, should regard the whole State as its campus.

A striking characteristic of this expansion of education is that all the topics, all the points of contact, have, apparently, the same value; there seems to be no rank, no precedence, among them; and this is very shocking to the old type of conservatives. The colleges or universities that attempt this extreme, have the old humanistic courses, Latin and Greek, and philosophy thrown in, pell-mell, with dairy farming and poultry raising. In fact, many agricultural colleges have, in recent years, thrown in humanistic and culture courses. The Pennsylvania State College, for example, was originally a somewhat old agricultural college, but has expanded until agriculture is only one department, and it now offers with equal emphasis technical, mechanical and scientific courses, as well as humanistic and culture studies.

All this is undoubtedly in conformity with a wide popular demand. Our people are so aflame with the idea that everything should be taught by institutional teaching, they are so suspicious of what they

think may be narrow, that an institution of learning must profess to teach everything, or they will not think it competent to teach anything. If it professes to teach dairy farming and bee keeping, they will admit that it may be able to teach Latin and Greek. The motto of the founder of Cornell University, that he wished to establish an institution where any man could learn anything, expresses the whole idea with perfect brevity.

Doubters and conservatives suggest that we are going too far with this mere information giving; that we should distinguish sharply between the information mill and the old fashioned restricted discipline, which in its way is of at least equal value. We should educate our people to make the distinction and give them an opportunity to choose the one they prefer, or which suits particular circumstances of individuals.

The reply is the same as the reply to the mere information or culture system of our schools. This branching out of the university is a necessity of the time to correct the ignorance, ill health, delusions, wastefulness and corruption in families, industries, agriculture, business and politics. Though very shocking to conservatives, it must continue until its mission is accomplished. It is not committed forever to what it undertakes. When, for example, as President Foster puts it, social hygiene is taught in homes, the university may cease to teach it.

The famous Temple College in Philadelphia will teach anything from Greek or Chinese to dress making, for which six or more students petition; and as a matter of fact dress making is taught there. In our crowded, varied life no one can deny the utility of these things. The State University of Kansas is preparing to establish a four years' course in city management, because so many towns are adopting the short ballot and city manager form of government.

Carson and Newman College in Tennessee has a course to teach how to read the magazines intelligently. It seems strange to a conservative to have a college equipment running into hundreds of thousands of dollars to teach such a subject as that. But it is in line with the popular trend. Why not have a course to teach how to manage a nagging woman? It would, I think, be more directly practical; might prevent divorces and check race suicide.

That is intended as a joke on my part. But I am by no means sure that it would be so regarded in many educational circles. It may be that I shall have the honor of having suggested an up-to-date course that has been actually adopted.

Some years ago great enthusiasm for research spread through all our colleges and universities. The professors were urged to make original research in their subjects and publish the results. It was intended to stimulate and uplift the professor, mak-

ing a larger, broader character of him and by inference a better teacher and inspirer of youth. As to the absolute correctness of that inference, some have doubted. They have thought that it took the professor too much away from his real work of the mental training of those under him; and in some instances that may have been so. In other instances the result seemed beneficial.

The whole thing is so new with us that it has not found itself as yet. Very likely some valuable researches have been carried out. But the complaint is made that most of the research has been so limited in its scope as to be useless or a mere parade of appearances; and some have even ventured the suggestion that to expect real research from the sort of ability that is drawn to colleges and universities by salaries varying from a thousand to twenty-five hundred a year, is pushing optimism to the breaking point.

But the plan went a step farther. It was thought "a splendid thing," "an education in itself," for students to be in the atmosphere of research, and, therefore, why not give them a little research work of their own? So a course or two in actual research has often been "thrown in" for undergraduates. The old heads smile and ask, What has become of mental training? with some remarks on the splendid product of conceit and empty-headedness that comes from a course in semi-professional athletics and one in boy research.

CHAPTER XII

INDUSTRIAL EFFICIENCY FOR COLLEGES

AMOST curious phase of the dissatisfaction with our information and elective systems was shown in the attempt some years ago to have all our colleges organized on a "business basis" as it was called; that is with the same administration as factories or manufacturing establishments which they were said to resemble. A college, it was said, was simply a store, the trustees were the proprietors, the professors were employees to teach certain specialties and mind their own business, and the students were the customers.

Detailed plans of bureaus and departments modelled on those of the Standard Oil Company and other great trusts were drawn up. One bureau, for example, was to keep tab on all the graduates in their life work, see what they were doing and follow them to the grave with up-to-date suggestions. The additional force of high salaried officials required for all this, adding to the expense and elaborateness already excessive was not much discussed; but the scheme was heralded as the one thing necessary to

make our colleges and universities perfect.

In order to test these proposals and criticisms of the business world, the Carnegie Foundation for the Advancement of Teaching, employed Mr. Morris L. Cooke, a college bred man, to make an investigation. He had for some time followed the modern occupation of investigating industrial enterprises and advising them on the most scientific and efficient methods of administration. He investigated eight colleges and universities supposed to be about typical of the six or seven hundred others, and his very interesting and valuable report may be roughly summarized under about ten heads:

1. The colleges are not at all standardized. Each has its own way of solving well known educational administrative problems. They have not adopted some one best way of doing everything as some of the best industrial concerns have done.
2. There is a lack of intensiveness in a great deal of their administrative work. Gardeners, for example, at one university began work at 9 in the morning, apparently because recitations began at that hour.
3. Some few of them seem to be governed on the one man military theory of supreme control in one head; most of them on the committee plan often running through all departments, with a lack of authority in all head men. They should all be governed by the modern functional plan of division into de-

partments over each of which some one man is supreme or almost so; and clerical work should be done by persons who are paid clerical wages.

4. Buildings are not economically used. Some rooms only two or three hours in a day.

5. They rarely, if ever, work out a comparison of cost with profit; admittedly somewhat difficult as they are not really like manufacturing concerns; but they should approximate to it.

6. The professorships are on life tenure and good behavior. But the tenure of a professor should be only as long as he is the best man obtainable, as in the industrial world.

7. Their bookkeeping and financial methods are various. The budget method should be adopted, and their books more detailed and clear.

8. Lectures and lecture notes of professors should be the property of the college, and should be filed on a card catalogue system to be added to, expanded or altered by subsequent professors.

9. There should be separate bureaus of janitors, stores, mail handling, bursar, discipline, publicity, inspection, especially in large colleges.

10. There should be more intense work in the financial and administrative departments; and in the teaching and research departments, where deliberateness is required, it should be encouraged and regulated.

It will be observed that this investigation does

not touch any of the teaching or educational methods or any of the very serious shortcomings and problems relating to them; and Mr. Cooke distinctly said that they were in a sphere of their own and beyond the reach of the new science of industrial administration.

It would be very easy, he said, to show that almost any college was deficient in its administrative methods; and the same could be said of the very large majority of business concerns, which, except in comparatively few instances, had not adopted modern scientific administration any more than the colleges.

The college world was not disposed to take Mr. Cooke very seriously. To many it seemed merely the snap shot opinion of one man investigating for the first time an unfamiliar subject. A person, it was said, accustomed to report on the "administration of glue works and soap factories," was hardly competent to make any very valuable suggestions to men who had spent their lives conducting colleges, especially when he was relying on the examination of only eight colleges, and was making general recommendations based on isolated instances of defects. His suggestion that colleges be organized on a unit of cost per student hour, came in for a good deal of ridicule. He was reminded that a college was an influence and its output one of character, mental and moral. Uniformity in its product was not attain-

able or even desirable. If he could figure it in cost per student hour, he was welcome to the task.

The general opinion was, probably, fairly well expressed in an article in *Science* for January 20th, 1911, by President R. C. Maclaurin of the Massachusetts Institute of Technology. Mr. Cooke, he said, had raised not a question that college officers had not raised among themselves and discussed *ad nauseam*; he had suggested plans that had been tried in past centuries and abandoned as failures; he had actually discussed whether scientific lectures should bear the mark of the inspiration of the moment or be carefully thought out. Criticisms of college methods were welcome as offering possible improvements, but Mr. Cooke's criticisms encouraged mere worship of administrative machinery.

"I fear that it will tend to increase the administrative machinery of our educational institutions, machinery that is already too much in evidence. When one listens to all the criticisms of our colleges and thinks of the great things that have been accomplished elsewhere with so little machinery, and so little noise; one wonders whether it might not be better for us also to settle down to quiet work," p. 102.

President Butler of Columbia in his report of November, 1914, had also some trenchant remarks to make on the subject, and the upshot of it all was that the phase passed, having contributed perhaps a few good suggestions. The colleges, so far as mere administration is concerned, are probably as

well managed as other enterprises and probably much better than the majority or the average. The hundreds of colleges in the country have for several generations been managing property and funds which now total over \$600,000,000 with loss or defalcation rarely heard of; handling constantly increasing swarms of students; gaining the confidence of moneyed men shown almost every month in the year by gifts and bequests poured upon them.

As another matter of fact, the colleges in recent years have been improving their administration methods as changing conditions and increasing numbers demanded it. They have kept up with the times in clerical organization, office work, typewriting, systematic reporting, modern conveniences and buildings; not always in the very latest "kicks"; but substantially abreast of the times. Graduates more than forty years old who have given any attention to the subject are well aware of this. If Mr. Cooke had gone beyond the eight colleges he examined, he might have found some of his suggestions better carried out than he supposed.

Since Mr. Cooke's report raised the question, there has been a good deal said to show that it was quite possible to go too far in this business administration and organize a college to death; forget the real business, which is teaching and discipline, and degenerate into mere worship of machinery. The administrative part of the college should be wor-

shipped just enough to give the professors the best chance at the students and produce the best teaching and discipline. More than that is idolatry of machinery.

The business attack was valuable because it gave an opportunity to bring out fundamental points. To say that a student was a customer who came to the counter for a commodity, got it and left, was as ridiculous as to say that he was the commodity delivered over the counter. Both ideas violate all experience and history of education and show the necessity of liberal education for men of business. The more you attempt to commercialize liberal education, the more you ruin it. It is intended to be an influence on human beings for the rest of their lives and with all of each life in view; not a stand and deliver of inanimate articles; and not a mere result at graduation.

Are college professors really nothing but employees in a mill to do their set, contracted for tasks and mind their own business? If you enforce that idea, will you draw stronger, abler men to the work? They are supposed to be less competent with us than in Europe. Will you make them more competent and improve their control and influence of young men if you test them by their ability in a specialty like a mill hand, and not on their general character and make up, as men?

They do not make an article as a mill hand does.

They are supposed to be masters of influence, able to do one of the most difficult things in the world, which parents usually give up, namely, training human minds, no two of which are alike. They meet together once a month or oftener in regular council on the questions and problems of discipline and study, they are responsible for maintaining good order and honesty, which is somewhat different from the position of mill hands. Their position is not altogether settled in this country and is full of delicate difficulties.

How far, for example, shall their government of the college extend in the rules and regulations they pass at their meetings? How far can they override the policy of the President, his "one man power," as it is called, and which, to a certain extent, experience has chosen to be almost as absolutely essential in our colleges as the authority of a captain on a ship? How far can he veto them, or shall he do it by an appeal in each case to the trustees? How far shall the appointment of new professors be in their hands or in his? Do you want for this purpose men who mind their own specialty or men who grasp the situation as a whole and feel that they are builders of it, parts of it and actors in it? Does all this require broad-minded men of tact, self-control and character, or is it mere employee and mill hand work? Which way do you want to develop them?

In German Universities the professors govern the

institution much more than in ours. They elect the President, fill vacancies in their own number, and have in control other matters which in this country are in the hands of the Board of Trustees. The financial management which, with us, is in the control of the trustees, is in Germany controlled by the ministry of the national government. A German university is a sort of self-governing democracy of students and faculty. It is somewhat curious that in a monarchical country, the universities should have a rather democratic government and that in our country they should have an aristocratic government. I do not mention this to show that we should give as large power to our professors as they give in Germany. Our own system has its advantages for us; and in any event must be developed or changed slowly. I mention the German method merely for the sake of pointing out that older nations who have developed what is generally regarded as a high class of professors, do not treat them exactly like mill hands. Dr. Prichett of the Carnegie Foundation goes so far as to say that our tendency to mere machinery of organization deteriorates our professors and destroys their individuality.*

* *Atlantic Monthly*, Vol. 96, p. 299.

CHAPTER XIII

THE REAL ADMINISTRATIVE PROBLEM

THREE is a problem on the administrative side which the "business men" in their wisdom hardly noticed. They did not take the trouble to look into the past history of college administration and see how it had developed in the last 30 years in the very methods they recommended. Those methods have steadily increased the expense. We have already alluded to the fact that it costs \$277 per year to educate a student at our Universities and only \$89 per year at European Universities. This is a controlling fact of profound significance that must not be lost sight of. It is reinforced by similar facts and their wide ramifications and results reveal the nature of the situation.

This complication and expense, as Mr. Charles Francis Adams has shown, is considerably out of proportion to the number of students graduated; that is to say, in the case of Harvard, the number of students graduated had increased, he found, four fold, while the cost of graduating them had increased over seven fold. Similar results would be found, it

is generally believed, in all colleges. Mr. Birdseye, in more severe language, shows that buildings and equipment have increased enormously in value, maintenance increased enormously in expense, and the output or graduates deteriorated in quality. To this must be added the fact that this increased cost of administration has brought on in most of our older eastern institutions excessive annual deficits in spite of the liberal gifts poured upon them by generous capitalists.

There lies the real problem for investigation; and it is much more important than harping about factory organization, marvellous bookkeeping and the latest filing system. We have "improved" our methods in the last thirty years, made them more popular, more commercial, and what a shocking result has followed! Have we been working under a delusion? Have we been putting time and money on mere machinery, mere administrative show that should have been put on professors and teaching? Why does our vast expenditure not equal in results the simple economical methods of Europe?

A showy, bustling administration of an institution of learning in this country is undoubtedly good advertising, increases numbers and draws students to higher education. Thousands of our people, filled with popular notions, judge entirely by this outward show. If it seems to be hustling, they infer without a thought that the teaching must be good; better

than anything in slow Europe; and they would hardly listen to a statement to the contrary. As Dean West says, they "believe that mere multiplicity of educational machinery is education."

If the public admires an immense expenditure of money, more and more elaborate apparatus and equipment, and there is abundant wealth to be bestowed in this sort of charity, it is the easiest thing in the world for educators and the public to lead each other on and on from one mighty expense to another, each new one made to seem a sure advance on its predecessors, and in a year or two equally easy to ridicule and prove a back number.

Enormous outlay and expense for the future are already planned, compared with which it is promised that the money already spent will seem like a mere drop in the bucket. Instead of one library or an addition to it, each department of science or languages in a college is to have a library of its own, wonderfully arranged and catalogued for instant reference with luxuries of tables and seclusion for every student. There will be reading rooms to contain the serial publications and journals of each department and perhaps of divisions of departments. Instead of a laboratory for chemistry and one for physics, there will be ten or more separate laboratories for the different departments of science. Mineralogy, for example, will have its separate laboratory, and so of geology, paleontology, anthro-

pology and the rest. The cost of any one of these will probably be more than that of the entire college plant of a generation or two ago. Biology besides its general museum will have a laboratory, with twenty or thirty aquaria for water life, a zoological garden with ponds and rooms for live birds and land animals, specimen rooms, a large laboratory for embryology, comparative anatomy, etc., private laboratories for the instructors, numerous lecture rooms, a fresh water research station and a marine research station. A similar set of laboratories and rooms will be provided for the physiological department with aquaria, temperature rooms for studying climate, botanical garden, ponds, optical laboratories, acoustic laboratories and respiration laboratories.

But this is not all; for the classical languages, literature and history are to be taught by the museum and laboratory system in complicated buildings filled with maps, charts, books, pictures, casts of sculpture, architecture, pottery and reproductions of the buried remains of the ancient civilizations. The casts and heavy objects will be on wheels so that they can be run into the lecture and recitation rooms or even into the reading alcove for each student with its pretty table and book case. I have forgotten to mention the psychological laboratory with its delicate and elaborate apparatus for measuring the phenomena of sensation and the functions of

the nerves and mind in observing and reasoning. I should also say that we are told to expect institutions which will have annually ten million dollars to spend on each year's work of research.

Will students be any better trained than they were fifty years ago? Not one whit. Education will, no doubt, be enabled to reach greater multitudes; will, no doubt, attract greater multitudes, and will have adornments and dignities in accordance with the taste of the times. But the problems, the essentials, of education will remain the same. The boy or the man will still have to train himself by his own efforts or he will not be trained, no matter how much information or how many conveniences and luxuries surround him.

The essential principle of education never alters. We may pursue it with the expenditure of millions of money and infinite ingenuity of inventions, in the hope that they will be substitutes for it or make it other than what it is, but we shall never succeed in annihilating or changing it. Nothing can take its place. Macaulay, Gladstone, Darwin, Huxley in England; Prescott, Motley, Parkman, Lowell in America and all the other educated men of that time were as highly trained under the supposed absurdly simple methods before the year 1850 as any one has been since; as highly trained as any one will be in the future. But it may be said, if under modern vast increase of wealth the public have money enough

to spend on surrounding education with elaborate complexity and attractions, why should they not be indulged in pleasures for which they are willing and can afford to pay?

As an illustration of all this a striking instance has recently been brought to my attention. A certain very high class, large, successful and chartered boarding school has in recent years vastly increased its equipment and conveniences. It has splendid buildings, ample grounds and apparatus for sports of every kind, gymnasium and tennis courts for winter, perfect systems of ventilation, lighting, heating and plumbing. Sanitary precautions are exacting, food ideally perfect in nutrition; everything proved, tested and inspected by scientific experts. The increased cost of this has compelled it to nearly double its charge for tuition and put it beyond the means of many parents. The other day another kind of expert that had been forgotten, an expert in the humble occupation of teaching, was put on to inspect. A thunder bolt dropped out of the sky. Buildings and equipment, he said, were absolutely perfect, had seldom, if ever, been equalled; but in every class the teachers did most of the talking.

"The masters play too dominant a rôle in the class room. The boys play only a minor rôle, whereas they should play the leading part. If a stenographer's record should be made of the work in most classes, it would probably be found that the master does four-fifths of the talking, and a large part of the

actual work at the board, or in arranging and operating apparatus and so on."

The real teaching, the mental training therefore in spite of splendid equipment, elaboration and expense is not better than it was forty years ago when the cost was half what it is now. In other words the school is run on the American information system in one of its best and most complete forms. The information is full of refinement, good citizenship, moral and spiritual uplift, humane, beneficent ideas, good manners, good conduct, interest in literature, art, history, the broad outlook of a gentleman. Who can object?

I do not say that the school should change to the mental discipline of the Naval Academy at Annapolis or of a German gymnasium or of an English public school because this information system has become ingrained into our life and may be part of our present mission. It has obviously long been the mission of that particular school. For over half a century the most refined, best, oldest as well as the newest and most wealthy families of the country have been sending their sons to that school for the express purpose of rescuing them from the crudeness, vulgarity, commercialism, philistinism and coarseness of American life. What is more, the school has most eminently succeeded by the testimony of both parents and children in doing what was asked of

it. Shall we call on it to reject such a mission?

There are other schools like it; and I can hear many people say, God be praised for that. I can remember the time when schools of this sort were for the first time coming into existence, and how they were welcomed by certain people as civilizers, a term which under the circumstances describes them very well.

Could they not, it will be asked, combine real mental training with all that is valuable in the information system and gain two years of time? Possibly. But it is not quite so easy to bring about as the inexperienced suppose. More than one person has to be consulted. Where for example will you obtain the teachers? How will you have boys—and parents too—in condition for that sort of training before they come to you? To most of our people a teacher who does four-fifths of the talking seems like a hustler who knows a "lot," and is pushing things on energetically. The roots of the thing are too widespread to be torn up at one pull. The first step in any such change must be to bring the American people to see clearly the distinction between information and training; to know exactly what they are doing, to know exactly what sort of education they have compared with other educations in the world. Then let them decide what they want.

CHAPTER XIV

LATEST PROPOSED CHANGES

THE Rockefeller General Education Board of New York in their earnest efforts to assist American education have recently invited proposals of changes to be brought before them, and have authorized their publication "with a request for criticism and suggestions."

Any consideration of these proposals involves a repetition of principles or ideas already stated in this volume. But it is important to bring the situation up to date as far as possible; and in a subject of such complications, obscurity and subtle influences, repetitions of essentials seem necessary. The principles can only be made clear by numerous facts and illustrations.

The new proposals begin with the usual attack upon American education, past and present; that it is merely conventional; mere fumbling with Latin, Algebra, Geometry and similar old things, when it should have for subjects modern practical activities. It is merely formal without reference to individual or social needs. Its subjects deal with words and ab-

stractions remote from use and experience, and are studied only because they have been studied in the past. "Woodwork, Shakespeare, biology and current events" are better for children than old-fashioned mathematics and language, because the children like the former and very few of them like the latter.

'Proof of the failure of the old subjects to give good education is shown, it is said, in the college entrance examinations where 76 per cent. of the candidates fail to gain a mark of over 60 per cent. in the dead languages; 69 per cent. fail to get over 60 per cent. in algebra, and 42 per cent. fail to get over 60 per cent. in geometry. Teaching these subjects is usually nothing but "drilling in arbitrary signs by means of which pupils determine mechanically what they should do without intelligent insight into what they are doing."

"It is therefore useless to inquire whether a knowledge of Latin and mathematics is valuable, because pupils do not get it; and it is equally beside the mark to ask whether the effort to obtain this knowledge is a valuable discipline, since failure is so widespread that the only habits acquired through failing to learn Latin or algebra are habits of slipshod work, of guessing and of mechanical application of formulæ, not themselves understood." General Education Board. *Occasional Papers*, No. 3, p. 6.

Assuming that the above is not exaggerated what does it show? Simply that American teaching is atrociously bad; or that American Children and their

home surroundings are so lax that the teachers can do little or nothing with them in subjects in which European teachers bring their pupils out two years ahead of ours.

What remedy do the new proposals offer? To improve the teaching? Not at all. They abandon that as hopeless. "We can never hope," it is said, "to apply family pressure, social pressure, official pressure," as they do in Germany, rejecting the incompetent and educating a picked minority. That is a narrow view to take, I think. For the German system of two classes of schools educates everybody, and the systems of France and England equally good and possibly better should be considered. But it is certainly a striking fact in the history of our education that these latest proposals of changes so avowedly and frankly abandon the European teaching methods. Let us see what remedy they actually offer.

Instead of improving teaching or a better classification to prevent slow pupils holding back the quicker ones they propose the old, old trick of more information, different subjects, intensely practical subjects, magic subjects that will dispense with all skill on the part of the teacher and automatically educate everybody. The accessible world all round you is to be used for that purpose and furnish "realities," instead of books, for education. A quotation from the proposals that has been going the rounds

of the newspapers has filled every one with the inspiring thought that the new education will be nothing but delightful trips and picnics.

"Let us imagine a Modern School in New York City. Consider for a moment its assets for educational purposes; the harbor, the Metropolitan Museum, the Public Library, the Natural History Museum, the Zoological Garden, the City Government, the Weather Bureau, the Transportation Systems, lectures, concerts, plays and so on. Other communities may have less, but all have much. As things now are, children living in this rich and tingling environment get for the most part precisely the same education that they would be getting in, let us say, Oshkosh or Keokuk."

The only children in America then who will have a good education will be those living in the city of New York. Terrible the fate of the small town, village and country children; and how about the fact that 87 per cent. of the names in "Who's Who" are of people who were brought up in country life?

The curriculum of the modern school, the proposals say, should be "built out of actual activities in four main fields: science, industry, æsthetics and civics." *Æsthetics* include literature, language, art and music. Civics mean history, institutions and current happenings. Science is to begin delightfully with learning to know trees, plants, animals, hills, streams, rocks and to care for animals and plants. Apparently a zoological and botanical garden or a farm is to be attached to every school. Then "the life cycles of plants and animals" are to be taken

up, followed by inanimate things, imperceptibly grading into chemistry, physics and biology. These, through understanding such things as a fireless cooker or a camera, grade into the main object, the industrial, manufacturing and commercial processes of the country.

It is obviously industrialism and Kindergarten System applied to older children and is another instance of the immense influence that system has had in this country. But granting the value of that system for very young children, the best educators have always more than doubted the value of extending it.

An obvious criticism on this curriculum is that while it might conceivably be good for some special class or section of youth the attempt to apply it to our whole school system as a solution of all difficulties, and our two lost years, is somewhat staggering. The curriculum seems to me very much like the special courses and special students that were some years ago found so abundantly in our colleges. They were intended to pull through the weaklings, the lazy and the incompetent and give them some refining influences. But these special courses proved to be failures and have been largely abandoned.

It has also been urged upon the General Education Board to introduce more observational studies; that is, subjects like drawing, music, the fine arts, and use of tools, which train the senses and powers

of observation. Training of the senses, the use of the hands, eyes and brain together is undoubtedly valuable, as was discovered long ago. It tends strongly to accuracy, it starts careful reflection and sound reasoning; it offsets too much sedentary study over books and seems, as was once said, to reach the primitive judgment. It is part of the Montessori and other successful teaching systems for children. The human race in the far past educated itself by that means alone.

But excellent though it is, it is very limited in its scope. It has been found invaluable at Hampton and Tuskegee for starting the education of Negroes or Indians. Children should be started with it. Adults need it occasionally. But you must go far beyond it. Many children need very little of it. Most of it does not connect up with the more important intellectual powers. Whole tribes of savages and primitive men have their observational senses trained in the most wonderful way; in some respects far beyond anything to which civilized people attain; but they remain nevertheless on a low intellectual level. They are not what we call educated and often cannot be educated in that sense beyond a very limited degree. Illiterate persons, educated by contact with everyday things, "realistic things," are often well sense trained, successful in a livelihood, intelligent and good citizens. But they are held down to a lower plane. They lack a great

deal that gives to the regularly educated man his wider scope and power. In short, you cannot reach intellectual results in individuals, or in mass, by sense training alone.

It was a knowledge of all this, I take it, a knowledge of the insufficiency of education merely by contact with everyday things, and "realistic things"; a knowledge of the insufficiency of sense training, valuable though it is up to a certain point, that originally caused schools to be started in early stages of civilization to develop a stronger and better type of mind by means of teaching in-doors by books, geometry, mathematics, logic, philosophy, language and other difficult reasoning processes. But the recent suggestions before the General Education Board would carry us back of this to the educational methods of the primitive races, the methods, for example, of our North American Indians, who thought it wrong to rebuke or discipline their children, for fear of injuring their independent spirit. They thought the best education was to leave them to grow up with everyday and realistic things; that is, by acquiring the knowledge inseparably connected with the industries of the wigwam and the village, just as we are hereafter to be educated by acquiring the knowledge inseparably connected with the industries of New York.

Further details of the changes suggested to the General Education Board show the extraordinary

hold our information system is attaining. It has already, it is said, been partially and timidly introduced. It should now be introduced boldly. It should completely supersede the old method or the remains of the old method, of mental discipline. Great contempt is expressed for mental discipline. Instead of it, real things, or things with a real purpose, should be taught. "Mental Discipline is not a real purpose." That mental discipline is of any value is an unproved assumption. It has merely been supposed in the past to have been of value. It is therefore merely historical and traditional. All historical and traditional methods of teaching must go by the board; and in their place must be substituted "realistic methods." Yet in spite of all this contempt for mental training, it is said that "the real realistic education proposed must eventuate in intellectual power."

Mathematics must largely go. Algebra is as foolish a subject as Latin or Greek. "Algebra is of no importance to men following law, medicine, journalism or theology." "More Latin can be learned in enormously less time by postponing the study until the student needs the language or wants it." Even geometry, supposed for hundreds of years to be the most disciplinary of all the mathematics, must go, except the simplest elements which can be taught in a few lessons. The only mathematics retained should be such as are inseparably connected with in-

dustries and manufacturing. Even science, which at first is said to have made a new world, and rendered all past education ridiculous, is nevertheless to be taught in only such quantities as are inseparable from industries. This may turn out to be more than they suppose. But the suggestions go on.

"If, for example, only so much arithmetic is taught as people actually have occasion to use, the subject will shrink to modest proportions; and if this reduced amount is taught so as to serve real purposes, the teachers of science, industry and domestic economy will do much of it incidentally."

Even spelling is to be taught incidentally, while teaching other things, or real purposes. The multiplication table, however, we are glad to learn, must be taught, even by compulsion if necessary. "What is taught," is it said, "will depend altogether on what is needed," and that principle is certainly excellent and may bring us round again to the old system. It is admitted finally that all suggestions are tentative and experimental; and indeed similar experiments have been going on for a number of years.

None of them that has been adopted has enabled us to catch up the two years by which European education excels ours. In fact a large part of the condemnation of mental training is a condemnation of the European System, which is two years ahead of ours. The advocates of the new proposals are on fire with zeal for the practical, the immediate, and

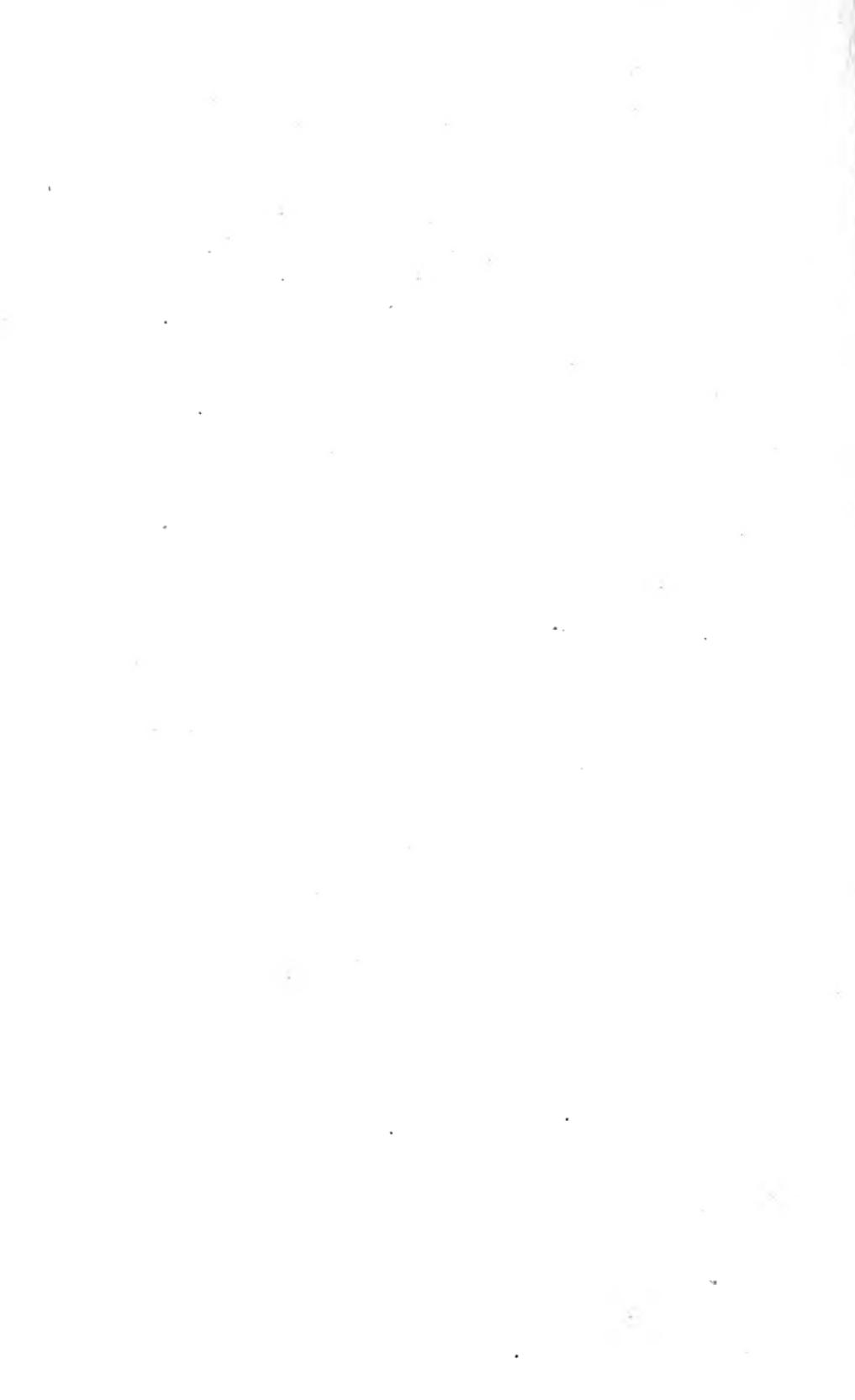
for training children "for the realities of life and existence." But what could be more practical than the European System of putting children into actual life and the professions two years ahead of ours? With all the innovations, new subjects, practical subjects and valuable information of every kind put into our system, it is still two years behind.

Meantime we are continually introducing new subjects and expecting the millennium to come from each new one. Putting it in another way we have this situation: Our teachers are underpaid and inferior compared to European teachers; they teach largely by the method of doing nearly all the talking, instead of leading the children to teach themselves; they are compelled by circumstances to furnish information and refinement rather than training; to hold back the bright ones to the level of the slow ones; the children without home training that would make them good material are very lax and their parents are equally lax; the children from lack of nutritious food, or some unknown cause are supposed to be unable to stand the severe training of European schools; our school hours are very short and vacations very long.

We produce by these methods an education which though two years behind that of Europe nevertheless seems to suit our present American conditions very well. Every individual tends inevitably to the qualities of intelligence the race has had in the past;

will often reach the goal without assistance and often with obstacles in the way. This pulls us through. Inasmuch as our method takes two or three years longer there is time for the long established hereditary qualities of our race or races to develop with the comparatively slight or weak training our information system gives.

At times we become dissatisfied with it. But unable to change it by introducing the European disciplining methods because our teachers may not be equal to the task and with children, parents and the public opposed to it, we forget that teaching is an art, not a mechanical routine. We keep on introducing new subjects in the hope that they will automatically or mysteriously change the condition; and we keep on introducing subject after subject in the vain endeavor. Once you adopt the information method there is not very much difference in the effect of the various subjects. If you decide that that method is on the whole best for our American conditions, you must be satisfied with its taking more time. You cannot force the method beyond its natural limitations or make it do the work of the other method.



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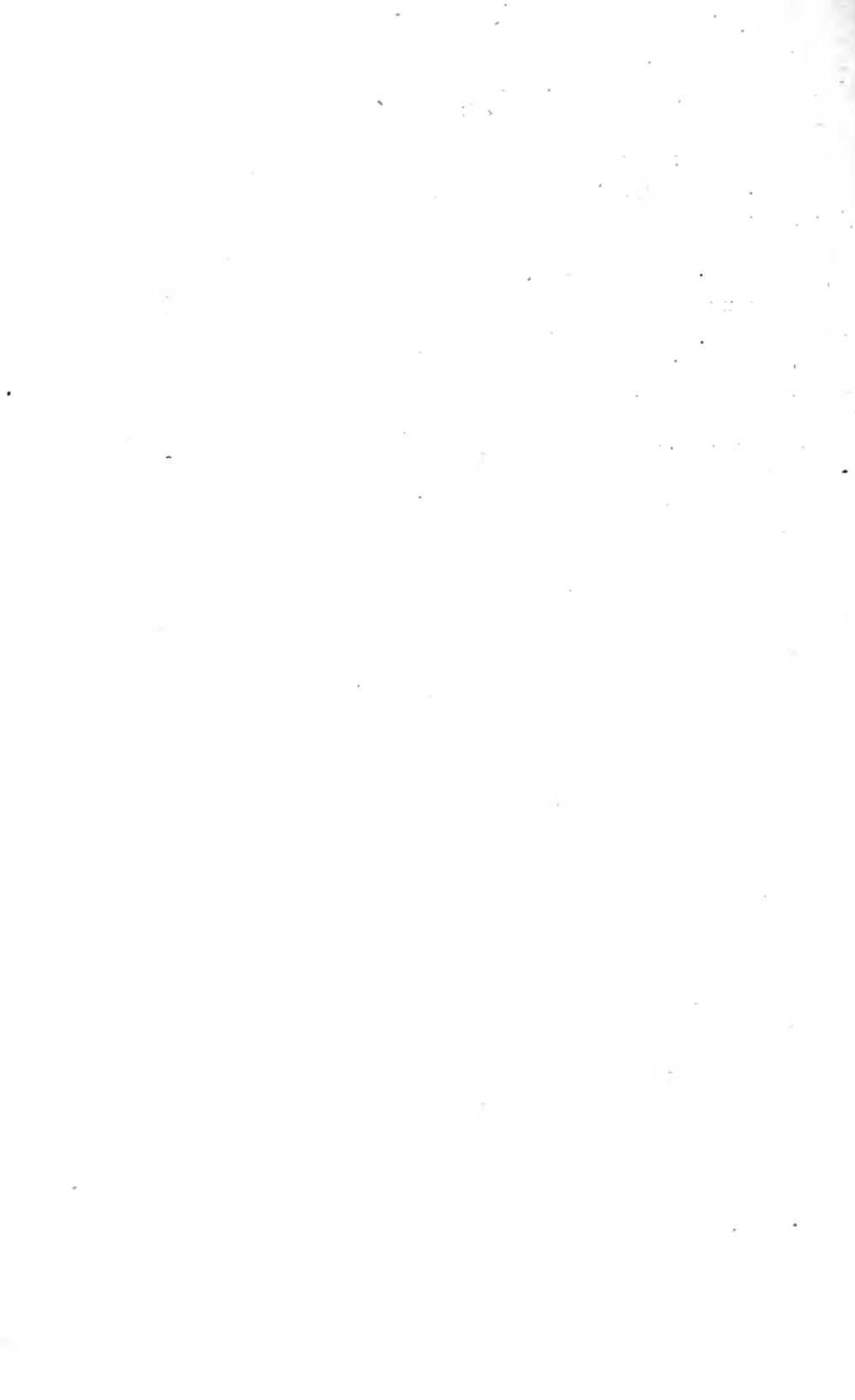
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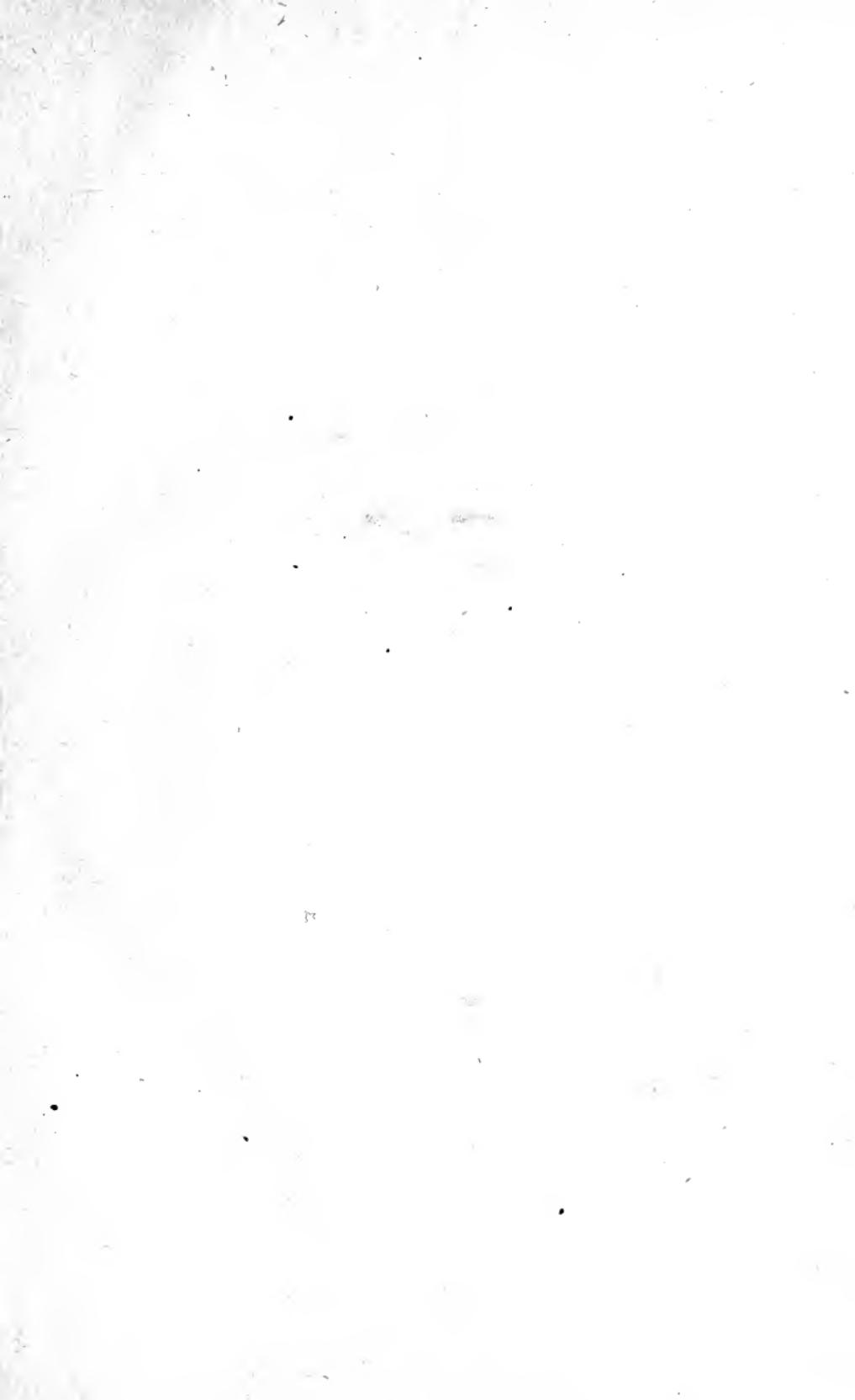
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